

BASF

Annual Report 1981

AR50



At a Glance

IN MILLION DM

	1979	1980	1981
BASF World Sales	28,022	29,991	34,227
 BASF Group			
Sales	25,896	27,731	31,766
Net income (after taxes and minority interests)	619	359	367
– per share in DM	15.71	8.98	9.03
– in percent of sales	2.4	1.3	1.2
Capital expenditures on tangible fixed assets	1,811	1,841	2,059
Depreciation of tangible fixed assets	1,628	1,592	1,733
 Number of employees	117,168	116,518	116,646
 BASF Aktiengesellschaft			
Sales	12,134	12,491	14,184
Net income (after taxes)	405	330	325
– per share in DM	10.27	8.25	7.98
– in percent of sales	3.3	2.6	2.3
Dividend payout	315	280	285
– per share in DM	8.00	7.00	7.00
Capital expenditures on tangible fixed assets	887	811	859
Depreciation of tangible fixed assets	777	764	800
 Number of employees	52,515	52,312	52,690

BASF world sales represent the total consolidated net sales of all companies in the BASF Group.

The BASF Group takes into account BASF Aktiengesellschaft and all companies which are directly or indirectly at least 50 percent owned by BASF Aktiengesellschaft.

The Group accounting includes majority holdings in full, and half of the 50 percent participations. Group companies of minor importance are not consolidated.

STRUCTURE OF BASF

	BASF world, 292 companies Sales: DM 34.23 billion
	BASF Group, 111 companies Sales: DM 31.77 billion
	BASF Aktiengesellschaft and Consolidated German Subsidiaries, 34 companies Sales: DM 24.40 billion
	BASF Aktiengesellschaft Sales: DM 14.18 billion

Annual Report 1981

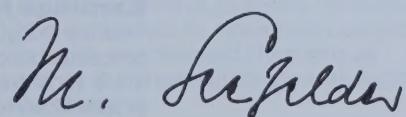
Contents

<u>Letter to Stockholders</u>	1
<u>Report of the Board of Executive Directors</u>	
Business in 1981	2
Finance	4
Capital Expenditures	6
Research and Development	8
Employees	10
Safety and Environmental Protection	12
OPERATIONS	
Raw Materials and Energy	14
Agricultural Chemicals	18
Plastics	22
Chemicals	26
Dyestuffs and Finishing Products	30
Consumer Products	34
OPERATIONS BY REGION	
Europe	38
North America	38
Latin America	39
Africa, West Asia	41
South and East Asia, Australia	41
FINANCIAL REVIEW	
Affiliates	42
1981 Financial Statements with Notes:	
BASF Group	48
BASF Aktiengesellschaft and its Consolidated German Subsidiaries	56
BASF Aktiengesellschaft	62
<u>Report of the Supervisory Board</u>	70
Supervisory Board	71
Board of Executive Directors	71
Directors	72
Ten-Year Summaries	74

synergistic effects. Long-term we anticipate new technology to open interesting opportunities for our vitamin, crop protection, pharma and intermediates operations.

The Annual Report describes the development of business and significant events in 1981. The nominal value of BASF Group sales advanced substantially, however, their volume rose only minimally. Nevertheless we managed to attain the 1979 level again. The gain was borne exclusively by business conducted abroad. We cannot be satisfied with earnings that only reached the previous year's level. They reflect distinctly the surge of costs described at the outset. Nevertheless we propose to pay a dividend of DM 7.00 per share again.

How economic conditions will develop in coming years is difficult to predict. However, we assume that the future of our enterprise will depend more than ever on the strength of its own resources. We have targeted our long-term investment strategy as well as the continuing intensification of research and development accordingly. Thus we have taken the necessary precautions to cope successfully also with the difficulties that may challenge us in the future.



Chairman

BASF Aktiengesellschaft
D-6700 Ludwigshafen
West Germany

BASF

Report of the Board of Executive Directors Business in 1981

BASF GROUP SALES	million DM	1980	1981
Outside of Germany		27,731	31,766
Germany		14,769	17,926
		12,962	13,840

DM 4 billion increase in sales

Business in 1981 operated in a climate of unfavorable economic conditions in numerous markets and intensified competition throughout the world.

Even though we were able to increase sales 14.6 percent to DM 31.8 billion, only 2 percentage points of this substantial advance represented a growth in volume; the remainder reflected higher prices as well as advantages gained in currency conversions due to a U.S. Dollar valuation that was stronger than a year earlier. As a result of the increase in volume, shipments reached the 1979 level again. The improvement in the value of sales stemmed primarily from business conducted outside of Germany. In Germany and parts of Europe, the volume of sales stagnated, while in some countries of the European Community and, in particular, overseas, we succeeded in expanding our volume of sales.

As in the previous year, business improved in the early months. The summer lull was less pronounced; so was the recovery usually experienced in the fall. At year-end sales again dropped to the level attained at the beginning of the year.

Earnings held

That the margins between expense and proceeds become persistently narrower and more sensitive evolved as the principal problem confronting all operating sectors. The share of raw material costs in total expenses continued to rise; these often substantial increases could not be reflected adequately in higher prices due to the worldwide economic slump and severe competition. Efficiency improvements permitted only partial recovery of the added costs. Earnings, therefore, held only at the preceding year's level. The already depressed return on sales ratio declined further.

Operations varied substantially

High feedstock costs impacted our refineries and commodity plastics most. These difficulties were aggravated in Europe where surplus capacities built since 1975, have created a structural crisis. The utilization of our capacities reached barely 60 percent. The resulting high level of fixed costs combined with escalated raw material costs, led to losses.

Our refineries continue to be restructured to produce more chemical feedstocks. We started to phase out capacities for the production of commodity plastics because we do not expect sufficient growth rates in the foreseeable future. Similar to the problems faced in commodity plastics were those of industrial chemicals which are only one processing step removed from petrochemical feedstocks. However, business in more sophisticated products developed satisfactorily even for plastics and, particularly, chemical products.

We strengthened our position in fine chemicals with the acquisition of the vitamin business of Grindsted Products A/S in Denmark.

Business in video cassettes gained considerable momentum and is being expanded vigorously.

Among agricultural chemicals the appreciable development of crop protection products deserves to be highlighted.

The broad selection of dyestuffs and finishing products helped us to cope with economic difficulties. Despite adverse market conditions, paints and coatings held their ground.

BASF Group

Sales of the BASF Group increased 14.6 percent to DM 31,766 million; in Germany they were 6.8 percent greater than a year earlier and outside of Germany 21.4 percent. Affiliates abroad raised their sales of products manufactured domestically by 25.8 percent to DM 8,558 million. Earnings before taxes and minority interests rose 1.5 percent to DM 1,290 million. Earnings after taxes and minority interests totaled DM 367 million, a rise of 2.2 percent compared to the previous year.

BASF Aktiengesellschaft

BASF Aktiengesellschaft achieved sales of DM 14,184 million or 13.6 percent more

SALES AND EARNINGS
million DM

BASF GROUP	1980	1981
Sales	27,731	31,766
Earnings before income taxes	1,271	1,290
Income taxes ¹	891	909
Minority interests	21	14
Net income	359	367

BASF AKTIENGESELLSCHAFT	1980	1981
Sales	12,491	14,184
- Germany	5,412	5,715
- Exports	7,079	8,469
Earnings before taxes	744	725
Taxes ²	414	400
Net income	330	325
Appropriation of net income		
Dividend	280	285
Transferred to reserves	50	40

¹ principally corporation and trade profit taxes.

² taxes on income, profit and property (corporation, trade, real estate, property taxes).

than in the preceding year. Exports were 3.0 percentage points higher compared to the previous year and accounted for 59.7 percent of sales. Pre-tax earnings declined 2.6 percent to DM 725 million. After-tax earnings totaled DM 325 million, a decrease of 1.5 percent compared to the previous year. DM 40 million were transferred to the free reserve to provide the company's equity capital position with added strength.

Proposed dividend

The profit available for dividend of BASF Aktiengesellschaft totals DM 285 million. We are proposing the distribution of a dividend of DM 7.00 per share to the Annual Meeting.

Outlook

At present we do not see any signs of recovery in the German economy. Nor does a decisive improvement in international markets appear imminent. The position of chemical industry is burdened by structural changes.

Nevertheless we also see opportunities. The ability of chemistry to convert materials will continue to be indispensable. Our efforts are focussed on these opportunities.

As in the past, we resolutely pursue our principal objectives to secure the supply of raw materials, to strengthen operations in highly sophisticated chemicals as well as to increase productivity throughout the company.

BASF GROUP
SALES BY OPERATION

million DM	1980	1981
Raw Materials and Energy	6,124	6,976
Chemicals	5,240	6,525
Agricultural Chemicals	4,668	5,235
Plastics	4,649	4,758
Dyestuffs and Finishing Products	3,879	4,424
Consumer Products	3,171	3,848
	27,731	31,766

As in the previous year, raw material prices escalated persistently until the fall and led to a further increase in inventories. It was greater for the BASF Group than for BASF Aktiengesellschaft.

Although total assets of the BASF Group were DM 1.6 billion and those of BASF Aktiengesellschaft DM 0.6 billion higher, their respective percentage gain lagged substantially behind the growth in sales.

BASF Group

While earnings remained almost unchanged, internally generated funds decreased by DM 136 million due to lower retirements of fixed assets. Although the outlays for tangible and other fixed assets were higher by DM 137 million, it was possible to finance these capital expenditures entirely from internal sources.

Increased inventories and receivables were financed in part by expanded current liabilities and accruals, in part by increased short-term loans. This development and the effects of currency fluctuations on the translation of the liabilities of our companies abroad, led to a rise in liabilities to banks and the capital market from DM 2,198 million to DM 2,614 million.

Since the rise in equity did not match the growth of total assets, equity, including minority interests and half of the special reserves, declined – expressed as a percentage of total assets – from 40.4 to 38.0 percent.

BASF Aktiengesellschaft

Although earnings remained nearly constant internally generated funds were reduced by DM 210 million compared to a year earlier. The decline is attributable to decreased retirements of fixed assets. The retirements were higher in the previous year due to the divestment of our holding in Röhm GmbH.

We were able to cover almost all capital expenditures in tangible and other fixed assets by internal sources. Higher current assets due to the increase in inventories were financed by the simultaneous rise in current liabilities. Thus the percentage of short-term liabilities in total assets rose slightly, while the share of long-term liabilities remained unchanged.

Liabilities to banks and the capital market were reduced from DM 369 million to DM 344 million. The equity capital, including half of the special reserves, decreased from 50.3 to 49.1 percent of total assets.

BASF GROUP SOURCE AND APPLICATION OF FUNDS

	million DM	1980	1981	1980	1981
SOURCE OF FUNDS				APPLICATION OF FUNDS	
Net income	359	367		Additions to tangible fixed assets	1,841 2,059
Depreciation and retirement of fixed assets ¹	2,155	1,931		Change in investments and other additions ²	301 220
Other items ³	329	409			
CASH FLOW	2,843	2,707		ADDITIONS TO FIXED ASSETS	2,142 2,279
minus dividend of BASF Aktiengesellschaft of the preceding year	315	280		Change in inventories	697 797
INTERNAL FINANCING	2,528	2,427		Change in receivables	393 458
Increase in paid-in capital, incl. premium on par value	67	97			
Bonds, promissory notes issued	21	47		CHANGE IN CURRENT ASSETS	1,090 1,255
Bonds, promissory notes redeemed ⁴	(210)	(39)		(without cash and cash items)	
Other changes in long-term liabilities	88	306			
Change in short-term liabilities and accruals	547	745		INCREASE IN CASH AND CASH ITEMS	– 55
EXTERNAL FINANCING	513	1,156			
Other changes	(2)	6			
DECREASE IN CASH AND CASH ITEMS	193	–			
	3,232	3,589			

STRUCTURE OF ASSETS AND LIABILITIES IN 1981

	million DM	%	million DM	%
ASSETS				
Tangible fixed assets, concessions, patents, and similar rights	8,076	40.6	CAPITAL AND LIABILITIES	
Investments and long-term loans	728	3.7	Paid-in capital	3,939 19.8
FIXED ASSETS	8,804	44.3	Earned surplus	3,106 15.6
Inventories	5,400	27.2	EQUITY CAPITAL	7,045 35.4
Receivables	4,682	23.5	Minority interests	118 0.6
Cash and cash items	725	3.6	Balance arising from consolidation	17 0.1
CURRENT ASSETS	10,807	54.3	Special reserves	736 3.7
Deferred charges and prepaid expenses	273	1.4	Long-term liabilities	5,543 27.9
TOTAL ASSETS	19,884	100.0	Short-term liabilities	6,425 32.3

¹ including depreciation and retirement of deferred charges and balance arising from consolidation

² including additions to non-current assets due to newly-acquired, consolidated companies (in 1980 the Fritzsche Dodge & Olcott group in particular) and additions to deferred charges and intangible assets

³ essentially changes in long-term provisions and special reserves

⁴ including the portions shown under short-term liabilities

BASF AKTIENGESELLSCHAFT
SOURCE AND APPLICATION OF FUNDS

	million DM	1980	1981		1980	1981
SOURCE OF FUNDS						
Net income		330	325			
Depreciation and retirement of fixed assets		1,118	859	Additions to tangible fixed assets	811	859
Other items ¹		135	189	Investments in affiliated companies and change in loans	414	266
CASH FLOW		1,583	1,373	ADDITIONS TO FIXED ASSETS	1,225	1,125
minus dividend of the preceding year		315	280	Change in inventories	130	215
INTERNAL FINANCING		1,268	1,093	Change in receivables	93	40
Increase in equity capital, incl. premium on par value		67	97	CHANGE IN CURRENT ASSETS	223	255
Bonds, debentures redeemed		(32)	(14)	INCREASE IN CASH AND CASH ITEMS	—	71
Change in long-term liabilities		51	24			
Change in short-term liabilities and accruals		(151)	251			
EXTERNAL FINANCING		(65)	358			
DECREASE IN CASH AND CASH ITEMS		245	—			
		1,448	1,451		1,448	1,451

STRUCTURE OF ASSETS AND LIABILITIES IN 1981

	million DM	%		million DM	%
ASSETS					
Tangible fixed assets	3,299	30.3	CAPITAL AND LIABILITIES		
Investments and long-term loans	3,126	28.7	Capital stock	2,032	18.7
FIXED ASSETS	6,425	59.0	Reserves plus profit retained	3,174	29.1
Inventories	2,019	18.5	EQUITY CAPITAL	5,206	47.8
Receivables	2,033	18.7	Special reserves	277	2.5
Cash and cash items	411	3.8	Value adjustments	53	0.5
CURRENT ASSETS	4,463	41.0	Long-term liabilities	2,722	25.0
			Short-term liabilities	2,630	24.2
			TOTAL LIABILITIES	5,352	49.2
TOTAL ASSETS	10,888	100.0			
			TOTAL CAPITAL AND LIABILITIES	10,888	100.0

¹ change in long-term provisions and special reserves minus value adjustments

Financial Ratios

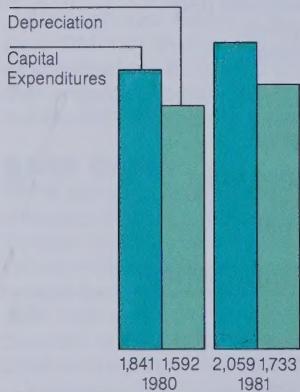
BASF GROUP

Acid-test ratio	0.8
(short-term receivables plus cash and cash items: short-term liabilities)	
Current ratio	1.6
(current assets: short-term liabilities)	
Long-term financing ratio	1.5
(long-term capital: non-current assets)	
BASF AKTIENGESELLSCHAFT	
Acid-test ratio	0.8
(short-term receivables plus cash and cash items: short-term liabilities)	
Current ratio	1.5
(current assets: short-term liabilities)	
Long-term financing ratio	1.2
(long-term capital: non-current assets)	

Capital Expenditures

BASF GROUP CAPITAL EXPENDITURES AND DEPRECIATION

million DM



1981 capital expenditures also large

In 1981 our capital expenditures were focussed again on securing the supply of raw materials and basic chemicals as well as on expanding our operations in knowhow-intensive processes and chemical products with high value-added content.

In the allocation of funds chemicals ranked first and involved, first of all, the completed facilities for vitamin precursors and the ammonia plant at the Ludwigshafen complex. Major expenditures were also devoted to finishing products as well as raw materials and energy. In the finishing products sector the major project under construction is a big plant in Freeport, Texas, for the production of acrylic acid and acrylates, intermediates for dispersions. Consumer products accounted for above-average capital expenditures: the biggest project being the expansion of video tape production.

Altogether the BASF Group spent DM 2,059 million for tangible fixed assets, 11.8 percent more than in the preceding year.

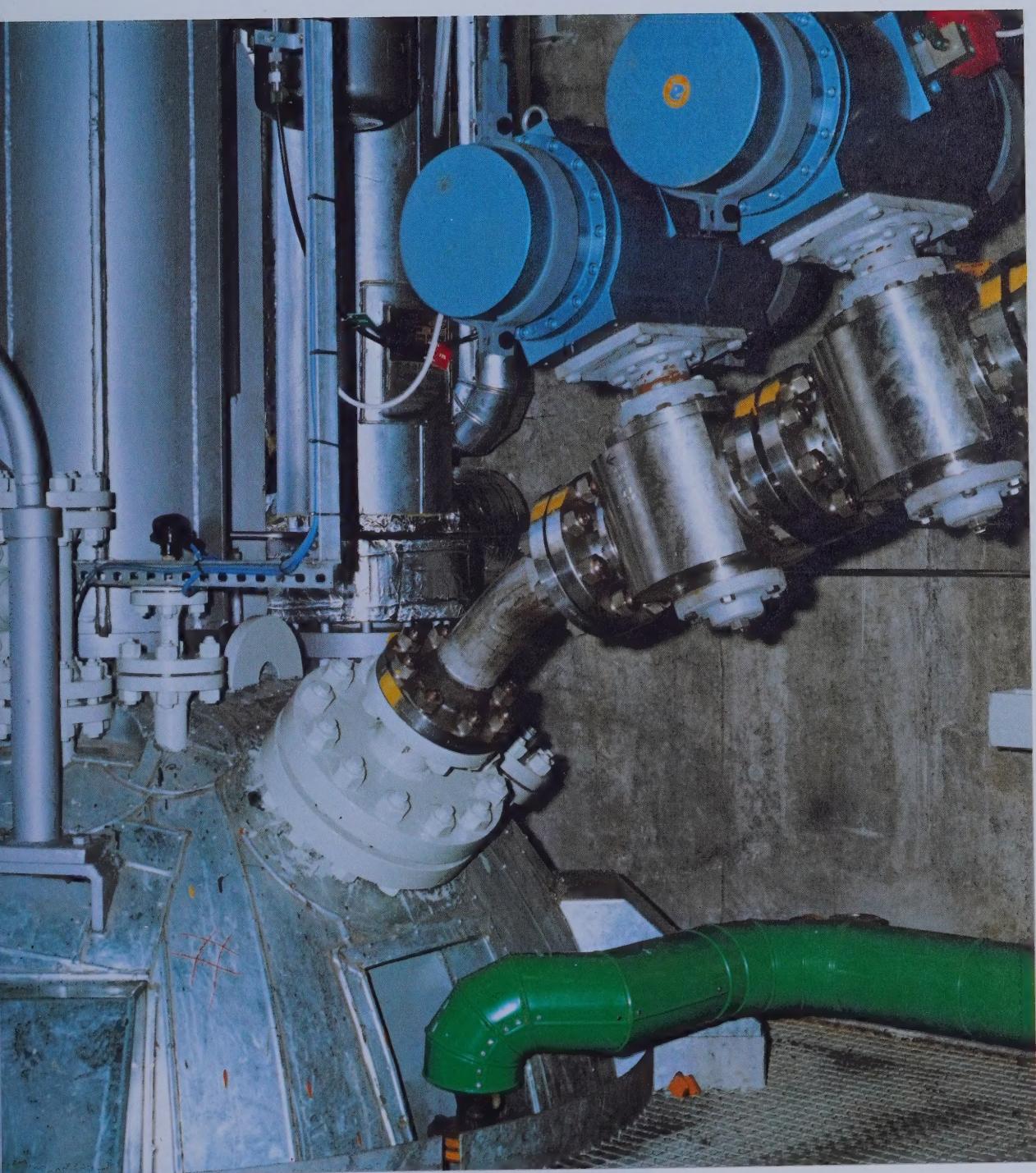
In terms of the regional distribution of our production facilities, the largest share, DM 1,355 million or 65.8 percent of total capital expenditures, was again invested in Germany, including DM 859 million allocated to BASF Aktiengesellschaft. In addition, DM 129 million or 6.3 percent were spent in other European countries. Expenditures outside of Europe increased 27.9 percent to DM 575 million, of which the United States with DM 464 million accounted for the largest share. 65 percent of the total outlays were devoted to new plants and efficiency improvements, 35 percent to replacements of plants and equipment. All of the allocations include funds for environmental protection which accounted for 7 percent of total capital expenditures.

Significant projects are detailed under "Operations".

The capital expenditure program puts special emphasis on knowhow intensive areas of our business. Based on precursors of our vitamin A production, we found new ways to produce agents identical to those found in nature. They are applied to fragrances and flavors. The photo shows a reactor in a new fragrance plant.



la température dans le réacteur



Research and Development

In the year under report the BASF Group expended DM 1,094 million for research and development, of which BASF Aktiengesellschaft accounted for DM 777 million. An additional DM 169 million were invested in research facilities and pilot plants. As in previous years, the BASF Group collected more in license fees than it paid. Income from licenses totaled DM 59 million, while royalty payments amounted to DM 31 million.

More than 10,000 employees, of whom 1,800 hold university degrees in sciences, were active in our laboratories.

Example: catalysts – keys to better raw material utilization

The use of catalysts can lead to improved utilization of raw materials and reduced energy requirements. These natural or synthetic substances permit lower pressures or temperatures in chemical reactions and increase the yield of the desired products. For this reason we place special emphasis on catalytic research.

New catalysts, for instance, improve the economics for the use of high-boiling crude oil fractions substantially. Depending on its source, crude oil contains considerable amounts of sulfur compounds. With the aid of catalysts crude oil fractions can be almost completely desulfurized. After catalytic conversion with hydrogen, the organic sulfur compounds can be transformed into elementary sulfur which is used, for example, in the production of sulfuric acid or in vulcanization.

A new type of catalyst achieves a substantially higher yield in the production of propene-based acrylic acid, basis for our dispersions.

Catalysts also help to improve the quality of products. Formerly, the aromatic compounds in paraffin oil had to be removed as resins before the oil could be used in pharmaceuticals. Now catalytic hydrogenation frees the white oil of any residues that need to be resinated or removed.

By using new types of catalysts in our gas phase process for the polymerization of ethylene, we also succeeded in the production of so-called linear low-density polyethylene and in the synthesis of ethylene with other materials that can be polymerized. This process which also saves energy, yields polyolefins with improved properties, including increased resistance to stress cracking. These plastics are now even more suitable as engineering materials for films, injection molding as well as pipes and cables. A specific grade has proved its worth in greenhouse applications whereby a liner or bubble-patterned sheeting fastened to the glass walls of greenhouses, prevents heat loss at night and achieves substantial savings in heating costs.

In nature, metabolic processes controlled by enzymes are typical examples of the effectiveness and selectivity of catalysts. This ideal is pursued by our biotechnology research group in developing new processes for the synthesis of complicated chemical

compounds. For example, optically active intermediates, required for synthesis of pure agents used in crop protection products and pharmaceuticals, or of albuminates, are produced by chemical processes in living organisms.

In this new area of our research the first technically feasible results have been realized. Entire microorganisms such as bacteria strains and fungi cultures as well as isolated biocatalysts fixed on polymers, can be used for new types of syntheses. Selection, mutation and, in the future, gen technology will improve the productive capacity of the microorganisms.

Electro-chemical processes, i. e. syntheses using electric power, can also achieve selective material conversions in a few steps and with insignificant losses. We have developed a production-scale electro-chemical oxidation process for organic intermediates, in particular for the synthesis of crop protection products and fragrances.

With the aid of biotechnology we seek new processes as alternatives to conventional, strictly chemical syntheses. The picture shows cultures of micro-organisms; those that promise the best potential are chosen.

Development of new products

A long-term research objective is the development of an electro-conductive plastic. Tests resulted in a number of new conductive polymer compounds and in new types of syntheses for known polyacetylenes, polyphenylenes and polypyrrroles. We put a pilot plant for the production of electro-conductive polymer films into operation and analyse the relation of the crystalline structure and conductivity of polymers that contain inorganic charge carriers.

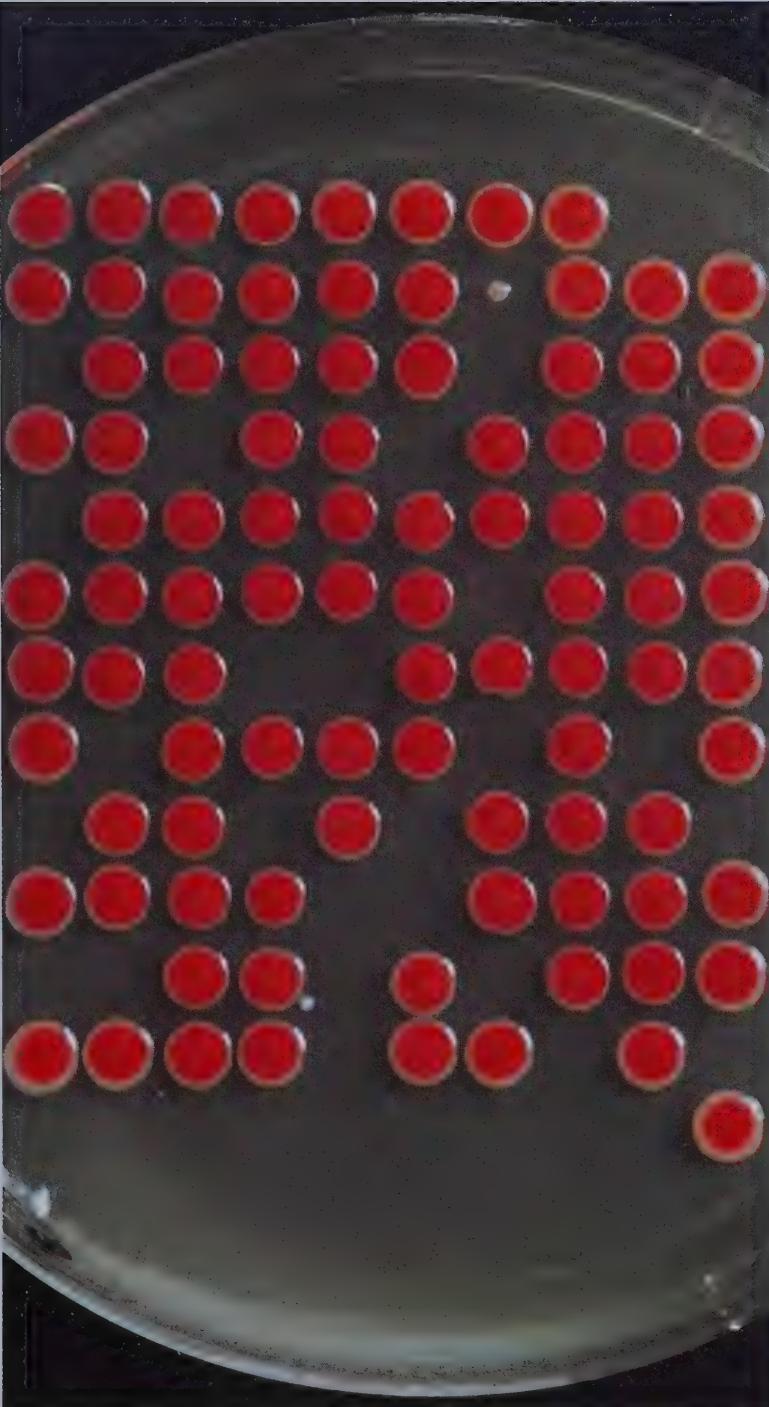
Other efforts are directed towards utilizing the energy of sunlight. In this context questions of light concentration and its conversion into other forms of energy are particularly important. For example, plastic panels were developed that contain fluorescent compounds as the active substance. The panels serve as light collectors. The collected light is concentrated and fed into solar cells that transform it into other types of energy.

For producers of printed circuit boards we introduced Nylotron® LN and Nylotron WP photo-resist films. The LN type is developed with organic solvents. The WP type, a semi-aqueous positive dry film resist, is without peer; it features excellent dissolution: minimum line distances of 10–20 µm are achieved.

Acylphosphine oxides are a new, heretofore unknown class of photo inhibitors for polymerisation reactions in plastics production. The biggest advance has been attained in polyesters. Coatings and glassfiber reinforced unsaturated polyester resins are polymerized without yellowing. Instead of conventional ultraviolet rays, this process uses normal fluorescent tubes as the source of light for curing – a considerable step forward.

Canthaxanthin is a natural pigment in animal nutrition. Its production employs a newly developed process on the basis of β -carotin.

Specific research results are highlighted under "Operations".



Employees

BASF GROUP PERSONNEL	
Employees of whom in	116,518
Affiliates outside of Germany	29,145
Affiliates in Germany	35,061
BASF Aktiengesellschaft	52,312
	116,646
	28,811
	35,145
	52,690
1980	1981

BASF Group: 116,646 employees

The number of employees in the BASF Group remained practically constant. An increase of 462 people in Germany was offset by a decline of 334 outside of Germany.

Personnel expense: DM 6.6 billion

Wages and salaries totaled DM 5,299 million, an increase of 9.8 % in part due to currency conversion factors. The legally required social security contributions rose to DM 796 million. Additional DM 521 million were expended for pensions and assistance.

We are greatly concerned with the deteriorating impact of tax legislation on pension plans of German companies. Prompted by the critical German federal budget situation, the measure jeopardizes our company pension plans increasingly.

Broad programs for training and development

In promoting employee advancement we enhance the professional and personal abilities of our employees and secure the company's performance and competitiveness. Of greatest interest were such subjects as adjustment to technical progress, improved understanding of business and economic relationships, better methods of cooperation and proper leadership skills.

In 1981 our companies in Germany accepted 1,987 young graduates for training. This number still exceeds our requirements. Additional openings in the training program could not be filled for lack of candidates. Altogether, 5,621 young people were being trained in more than 60 trades; they represent 6.4 percent of the total work force. Job vacancies were usually offered first to trainees; 1,463 took jobs with the company upon completion of their program.

Employee stock ownership grows

Employee stock ownership continued to draw even greater interest in 1981. As part of their annual bonus 29,854 employees acquired BASF shares with a total nominal value of DM 46.3 million; this represents an increase of 8.4 percent.

As in previous years exempt employees, not covered by the German law promoting the formation of personal assets, were again offered the opportunity to buy 7 BASF shares with a selling restriction of 5 years at a price of DM 49 each. The expense for the 51,065 shares acquired for this purpose totaled DM 6,966,922, including commissions. Legislation has unfortunately subjected also this program to detrimental tax treatment.

Active participation in elections of employee representatives

Elections to the Works Councils were held from March to May 1981. On average, 77 percent of the employees voted. Of the altogether 661 Works Council members elected, 118 were put on temporary paid leave to perform their new duties. Participation in the regular election for Spokesmen of management employees was also high.

BASF Aktiengesellschaft: 52,690 employees

Due to the expansion of the Willstaett works the work force increased 0.7 percent. Employee turnover declined by 0.9 percent to 5.9 percent. The number of foreign employees increased 2 percent to 3,407 people. The number of part-time employees rose to 750. The share of handicapped employees in the work force reached 7.6 percent and thus substantially exceeded the level mandated by legislation.

The number of hours worked annually per employee dropped from 1,627 to 1,618 hours as employees exercised their right to longer vacations. With 7.3 percent the absentee rate due to illness dipped slightly, following increases in the two preceding years. Overtime, as a percentage of the contractual hours, dropped to a very low 0.8 percent for hourly and 0.7 percent for salaried employees.

Of the 3,820 trainees at BASF Aktiengesellschaft, 62 percent enrolled in technical, 26 percent in scientific and 8 percent

in business training programs. 4 percent participated in courses specifically designed for high-school graduates. Trainees represented 7.3 percent of the company's work force, a level exceeding the average of the chemical industry and industry as a whole.

Fixed monthly base wage introduced for hourly workers; guaranteed wages for seniors

As of January 1982, the hourly employees of BASF Aktiengesellschaft are being paid a monthly base wage. This change provides greater uniformity in the remuneration of hourly employees and represents a first step towards an integrated standardized company compensation system for hourly and non-exempt salaried employees. On January 1981 we initiated a program guaranteeing senior hourly workers maintenance of their wage levels.

Social benefits

Pension programs, health care and the promotion of athletic, social and cultural activities were priorities of our activities in this area.

In the year under review, we commemorated the 80th anniversary of the death of Dr. Heinrich von Brunck, former Chairman of the Board of Executive Directors of our company. His pioneering established many of our traditional social programs during the past century.

Promotion of involvement in public affairs

To have the business viewpoint better represented in political decisions and to avoid any job-related detriments for the employee active in the socio-political environment, we have adopted provisions for political office holders, including leaves of absence, financial guarantees relative to the office held, and procedures for reintegration into the company after expiration of the mandate.

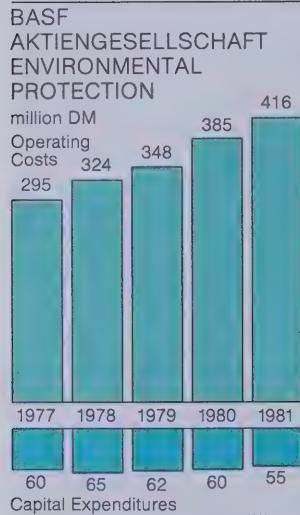
Appreciation of employee performance

We thank all employees of the BASF Group who contributed by their performance and commitment to the company's success as well as the employee representatives who supported us in solving problems of mutual interest.



In the year of the handicapped we made its motto proclaiming that we are responsible for each other and dependent on each other, also our own. In our company handicapped employees are fully integrated in the work process.

Safety and Environmental Protection



Compared to the preceding year, the incidence of on-the-job accidents declined again thanks to the technical and operational safety programs and thanks to the care and proficiency of our employees. At the Ludwigshafen complex the incidence was lower by 24 percent compared to a year earlier. Thus our company boasts a far better average than the chemical industry which, in turn, is much lower than the average of industry as a whole.

Our efforts to make chemical plants even safer are also reflected in the year-to-year decrease of operating failures as indicated, for instance, by the frequency of calls on the fire department which at the Ludwigshafen complex declined by half in the last ten years.

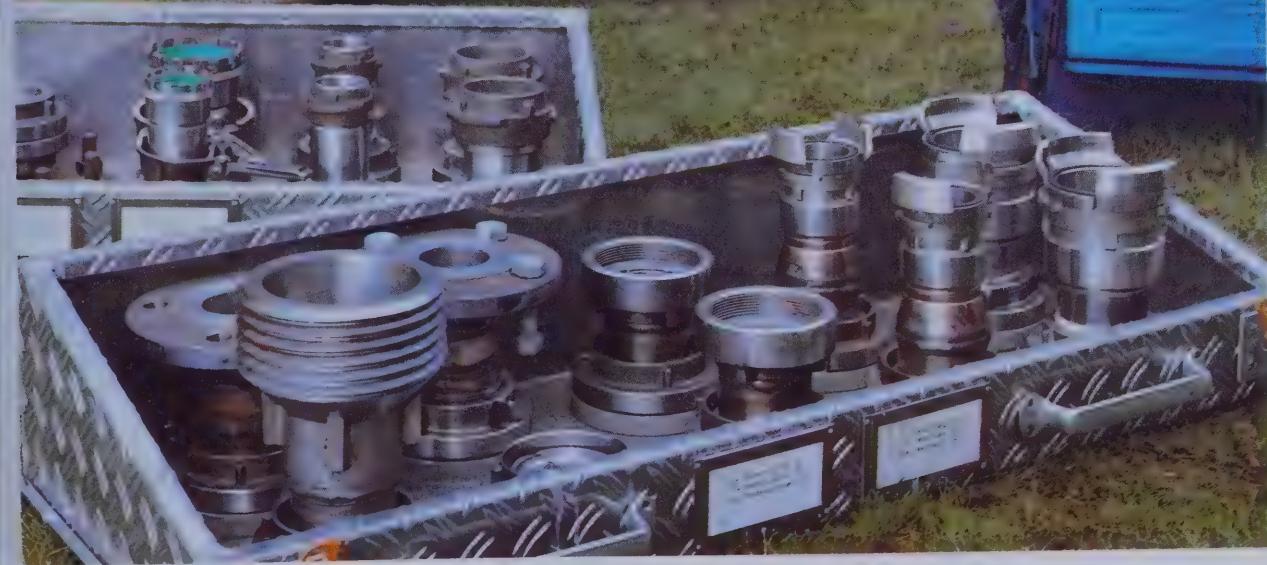
Environmental measures are an integral part of research for new processes and planning of new plants. Since 1971 BASF Aktiengesellschaft has spent altogether DM 3.9 billion for environmental protection, of which DM 0.9 billion were invested in tangible fixed assets and represent a 13 percent share in total capital expenditures.

We seize every opportunity to improve our technical and economic performance in environmental protection. At the Ludwigshafen complex an innovative process, developed by us, to dewater sludge by adding filtering auxiliaries and coal dust is being introduced. The energy value of the added coal as well as the sludge, i.e. of the organic substances contained in the effluent, is used for energy generation. Our process, called CarboSed®, has drawn considerable interest.

At the Antwerp works an incineration process for certain chlorinated organic compounds was developed. The environmentally compatible process removes these substances, generates energy and produces hydrogen chloride for recycling as a feedstock. Licences for this process have been granted. To capitalize on our highly sophisticated technology in incineration of chemical wastes and residues, we are now working with a partner in the North American market.

We are prepared to meet the growing interest of the public in environmental problems and to contribute to a more factual discussion. To provide more objective information, we have published a compendium of environmental data relating to BASF, the chemical industry and conditions in the Federal Republic.

Over the years the company's fire department has responded quickly, efficiently and voluntarily to transportation accidents. For the transfer of liquids, one of its trucks is equipped with some 150 different couplings to fit even the most unusual linkage.



Operations Raw Materials and Energy

Wintershall AG and some of its affiliates conduct our business in crude oil and natural gas production as well as refining. We produce bituminous coal at the Gewerkschaft Auguste Victoria mine. These companies contribute importantly to the BASF Group's needs for raw materials, energy and basic chemicals by supplying petroleum products such as heavy fuel oil, naphtha, benzene and cyclohexane as well as natural gas and coal. Merchant sales varied substantially. Due to sharp increases in raw material costs and continued sluggish demand, the refineries incurred losses. On the other hand, oil and gas production, supported also by new finds, developed favorably. In Germany, the profitability of oil and gas production is burdened considerably by higher royalties. Sales rose to DM 7.0 billion and represented 22 percent of BASF Group sales.

More coal and oil – less natural gas

Production of bituminous coal by the Gewerkschaft Auguste Victoria mine increased 5 percent to 3.17 million metric tons in 1981. Shipments to the Ludwigshafen works and BASF Kraftwerk Marl nearly attained the preceding year's level and accounted for 38.5 percent of the total volume of sales. Shipments to public and industrial utilities, central heating and coking plants as well as other consumers rose 5.8 percent compared to the previous year.

We raised our crude oil output 6 percent to 2.40 million metric tons. Compared to the preceding year production outside the Federal Republic increased 10 percent to 1.70 million metric tons; in Germany it declined 3 percent and totaled 0.70 million metric tons. Again we succeeded to slow natural depletion by instituting costly secondary and tertiary exploitation measures.

Natural gas output dropped 4 percent to 1.72 billion cubic meters due to lower demand in Germany and abroad. Production outside of Germany realized 384 million cubic meters.

Exploration successful

Operating alone or within consortia, we continued to intensify development of oil and gas deposits in Germany and abroad.

In the Federal Republic of Germany additional test wells confirmed the Mittelplate oil deposits in the mudflats off the German North Sea coast as well as other finds.

Under difficult technical conditions production was launched in the Greek Aegean Sea at the Prinos oil field and the Kavala gas field at the end of May. The production of oil in Libya was increased towards the end of the year, following the expansion of the installation in 1981.

An appreciable oil deposit was discovered off the coast of Gabon; development of the field will probably be started in 1982. In the Italian Adriatic Sea the Bonaccia 1 test well was successful; however, additional appraisal wells have to be drilled to confirm the scope of the gas find.

Negotiations for the development of the large natural gas field discovered off the coast of Qatar continue to be conducted. Ongoing discussions on technical details are still in progress.





DEMINEX – Deutsche Erdölversorgungs-gesellschaft mbH – in which Wintershall holds an 18.5 percent interest, continued its development and production activities. The search for oil and natural gas in the North Sea, in the Gulf of Suez and in South Argentina was successful. Preparations for production at a field in the Gulf of Suez are progressing. New areas for exploration were acquired in the North Sea, Libya and in Abu Dhabi.

In connection with the conclusion of a profit transfer agreement, the contractual relationship among the DEMINEX partners was revised.

We spent approximately DM 200 million for oil and gas exploration in and outside of Germany.

Effective January 1, 1982 the new German mining law took effect. Royalties on crude oil and natural gas from German wells were raised from 22 to 32 percent. This increase of almost 50 percent will impact costly exploration and the duration of production adversely.

Oil and gas purification plants on the coast of northern Greece, near Kavala, serve the Prinos oil and the South Kavala gas fields.



Business in refinery products difficult

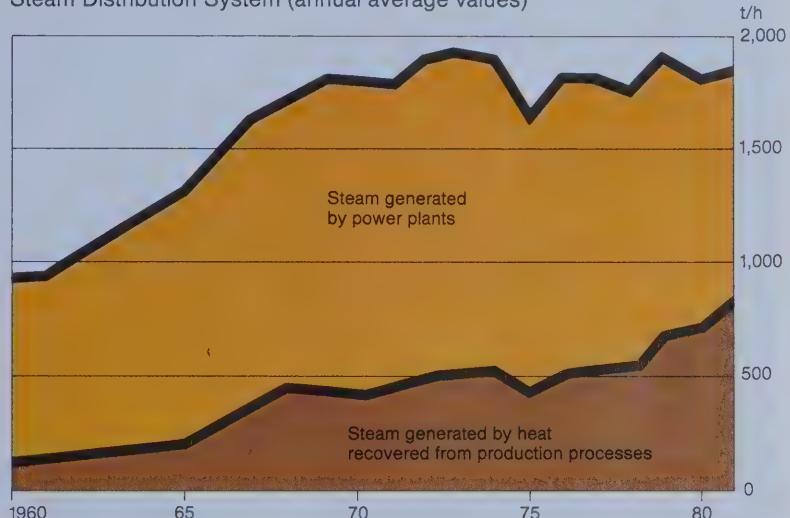
Reduced consumption led to crude oil surpluses towards the end of the year. OPEC countries responded by adjusting their output and prices. Although the volume of the Federal Republic's imports declined 19 percent compared to the previous year, the value of imported crude rose 11 percent to a total of DM 49 billion. Impacted by OPEC price escalations instituted in December 1980 and the higher valuation of the U.S. Dollar, the price per metric ton of crude, free German border, rose from DM 520 at the beginning of the year to DM 650 at mid-year and amounted to DM 612 at year-end.

Since the market could not absorb the full extent of the increase in crude oil costs, we were subjected to considerable losses in refining. Throughput of the refineries had to be throttled gradually, because long-term commitments to crude oil purchases had to be honored.

A further reduction in German consumption of petroleum products decreased the total volume by 10 percent to 106 million metric tons. The decline in demand, evident primarily in the heating sector, was rooted in the unfavorable state of the economy, the switch from heavy fuel oil to coal by utilities, and, in particular, the economies adopted by consumers in their use of light heating oil.

The volume of gasoline sold fell by 6 percent, while shipments of light heating oil dropped 12 percent and of heavy heating oil even 22 percent. To minimize losses, we were, therefore, forced to reduce throughput of the refineries to the lowest possible level. Thanks to its modern conversion facilities, the Lingen refinery, operating at 74 percent of capacity, was relatively well utilized, while the Mannheim refinery managed only a 44 percent rate. The Salzbergen lubricants refinery worked at full capacity again. Our overall 59 percent rate of utilization was slightly higher than the average of all German refineries.

BASF AKTIENGESELLSCHAFT, Ludwigshafen site
Steam Distribution System (annual average values)



Capital expenditures were primarily devoted to the further development of the fields in Dubai, Greece, Libya and off the Dutch North Sea coast as well as to producing wells in and outside of Germany. As part of the restructuring program for the Mannheim refinery, construction of an aromatics plant was started.

Added energy savings

In supplying energy to our production plants we seize every opportunity to counter cost increases to the fullest extent by using the most cost-effective fuel optimally and most efficiently. The share of fuel oil in steam and power generation was again cut back substantially.

At the Ludwigshafen complex we launched programs to lower consumption of steam by 70 tons per hour or 4 percent of the total consumption. Steam produced with recovered waste heat from production processes now accounts for more than 40 percent of the total steam generated.

Waste heat recovered from chemical production processes is being used increasingly for steam generation. The system enables us to save primary energy which would otherwise be needed to supply steam to our production plants.

Agricultural Chemicals

Our broad selection of solid and liquid one-component, multi-component and special fertilizers as well as our multifaceted line of crop protection products put us in the forefront of manufacturers of products for the farm.

Business in fertilizers and potash developed satisfactorily overall, although it was increasingly impaired by lagging demand throughout the second half of the year. The volume of crop protection products sold overseas was higher. In Europe demand stagnated.

Altogether sales totaled DM 5.2 billion or 16.5 percent of BASF Group sales.

Demand for fertilizers lagged

In the year under report fertilizer production was subjected worldwide to rising raw material and energy costs. As a result fertilizer prices increased substantially. These advances as well as the high interest rates slowed demand.

Consumption in Germany decreased; accordingly, our volume was lower than in the previous year. In other European countries we succeeded in holding our market position. Overseas business advanced appreciably in the first six months of the year and fared better overall compared to the preceding year; towards the end of the year business declined markedly, primarily in response to increased prices.

Specialties for professional and private horticulture, largely marketed by COMPO GmbH, secured their share of the German market by virtue of the broad selection of products offered. Business with the neighboring European countries was expanded resolutely.

In Ludwigshafen a new plant for the production of Isodur®, a nitrogen fertilizer with long-term effectiveness, was put into operation. We are thus prepared to fulfill the growing demand for Nitrophoska® permanent and Floranid® grades.

Capital expenditures focussed on efficiency improvements and, in particular, energy savings.

On the whole, plant utilization was lower than in the previous year.

Fertilizer research at our Limburgerhof agricultural experimental station in Germany was largely directed towards developing recommendations that will help farmers to achieve optimum yields and quality products under various environmental conditions. Activities also concentrated on the development of specialties for garden and home.

Potash and salt volume down

The favorable trend in the volume of potash sold during the previous year dissipated. As of the beginning of the year under review, consumption started to decline in North America and Western Europe; in the second half of the year demand decreased in most markets as agriculture became increasingly burdened by the strong advance in the costs of operating supplies and capital, on the one hand, and unsatisfactory selling prices on the other. At the same time many developing countries were subjected to a sharp decline in the availability of foreign exchange, a predicament aggravated by the higher valuation of the Dollar.

These developments also affected the volume of sales by Kali und Salz AG. Potash shipments in and outside of Germany were down, compared to the previous year. The volume of Thomaskali® also decreased. However, shipments of rock salt and magnesium compounds increased.

Despite the lower volume, Kali und Salz AG achieved, largely as a result of currency valuation and pricing factors, a 7.7 percent gain in sales to DM 1,502 million as well as favorable earnings.

The restructuring of both potash works along the Werra River progressed notably. The long-term programs provide for the conversion of rock salt by the dry separation process and improvements in production of specialties. Capital expenditures were targeted in addition towards efficient energy utilization. A new shaft at the Niedersachsen-Riedel works will enhance the profitability of the mine markedly.

Development work continued on the new potash project in New Brunswick, an East Canadian province. Kali und Salz AG holds a 20 percent participation through a Canadian affiliate. Pending completion of an exploration shaft and geological analyses underground, the decision to build a potash works is likely to be made in the second half of 1982.

Our products for agriculture also aid greenhouse crops such as tomatoes: special fertilizers provide the necessary nutrients, crop protection agents guard their growth, plastics protect the harvest in shipment.







At the end of 1981 Kali und Salz AG acquired from Kali-Chemie AG the closed Friedrichshall potash works. As a result, the rock salt position of two adjacent Kali und Salz AG works was substantially improved.

Unfavorable business in and outside of Germany as well as high inventories forced almost all Kali und Salz AG plants to institute temporary shutdowns or reductions in workhours during the first half of 1982.

Crop protection products sold well overseas

On the whole, business in crop protection products developed satisfactorily, but varied geographically.

Saturated markets in major application areas of Western Europe allowed hardly any expansion of volume. Moreover intensified competition frequently prevented the recovery of rising costs through higher selling prices. Earnings suffered as a result. Lack of foreign exchange in Eastern Europe hindered a gain in shipments to these markets.

Outside of Europe we strengthened our position in numerous markets and achieved above-average growth rates, in particular for Basagran®, a herbicide applied to soybeans, rice, peanuts and cereals. In the United States, our largest single market, volume was again stronger despite inclement weather conditions. The Basagran plant at the Geismar works operated at full capacity. Basalin®, a soybean herbicide, contributed increasingly to U.S. sales.

More sugar beet acreage and more frequent applications of multiple treatments helped Pyramin®, our proven sugar beet herbicide, to maintain its market position.

Registration and development of Poast®, a post-emergence soybean herbicide of special interest, progressed to the extent that marketing of experimental quantities is expected to start in 1982. For this product we acquired a development and marketing licence from Nippon Soda, a Japanese company. Also new to the market is Laddok®, a post-emergence herbicide developed by us to eliminate weeds in corn.

Ronilan®, a special fungicide for application to vines, fruits and vegetables, strengthened its position in Europe. Its introduction in major overseas markets progressed.

Business in growth regulators developed favorably. In Western Europe we succeeded to enhance our position with Cycocel® for intensive cereal farming. Terpal® continued to be well accepted by barley growers. Pix®, our growth regulator for cotton, was applied increasingly in Brazil and the United States.

Research efforts continued to focus on the discovery of new agents and improvements of production processes as well as crop protection product application methods. Expanded laboratories and experimental stations throughout the world will support these activities.

Fungol® transparent wood finishes protect wood against rot and insects and preserve its natural beauty. They are environmentally compatible and suitable for indoor application.

Our broad selection encompasses the range of commodity plastics, the group of engineering plastics as well as numerous specialties and, in selected areas, semi-finished and finished parts. 1981 was a difficult year for plastics. The second drastic oil price increase encumbered business more than the first. The renewed severity of the decline in demand in the face of surpluses fed by very big capacities, put commodity plastics into a structural crisis. Keen competition for market shares resulted in depressed prices and earnings. Our commodity plastics, too, were severely affected and, thus, suffered losses. In response, we started, on the one hand, to reduce capacities and, on the other, to intensify efforts to expand our position in the engineering plastics and specialties markets. Sales of our plastics business totaled DM 4.8 billion or 15 percent of BASF Group sales.

Severe slump in commodity plastics

Business in commodity plastics, based on polyolefins, polyvinyl chloride and polystyrene, was disappointing. In Europe, excess capacities pushed surpluses into a marketplace already weakened by low demand and, additionally, by greater economies practiced in the application of plastics. Declines in the polystyrene volume were in part offset by larger shipments to East Europe and overseas. Raw material costs, which account for most of the total cost of these plastics, climbed sharply. Intense competition for market shares precluded the necessary price increases. As a result, considerable losses were sustained.

Rheinische Olefinwerke GmbH, Compagnie Chimique de la Méditerranée S.A. and Danubia Olefinwerke Ges. m.b.H., our affiliates active in polyolefins, incurred losses. Since we anticipate only minor growth in the low-density polyethylene market, we shut down older plants at Rheinische Olefinwerke and the polyethylene facility at the Antwerp works. We thus reduced our capacities by 200,000 metric tons per year or 20 percent of our total capacity.

In view of this situation, we concentrated our efforts on improving products for specific applications. Results deserving special mention are specialties for cable insulation, improved products for shrink and coarse film, as well as adhesives that adhere plastic coatings to metal surfaces. Concerted efforts were also directed to low-pressure production processes as a replacement for high-pressure processes currently in use. Thus the development work for the production of the so-called linear low-density polyethylene by our gas phase process was continued. The product is particularly suited for the production of thin films.

We upgraded the high-density polyethylene engineering materials for injection molding and large hollow vessels, and, in addition, developed specific grades for the production of pipes, pipe sheathings and films.

New products were added to our proven line of Novolen® grades: a fast-flowing type for fibers; a specialty for food containers; as well as a talcum-filled engineering material for the production of automotive parts. Additional block polymers were developed

as engineering materials for the manufacture of packaging products, household articles and engineering parts.

New emulsion polymerized PVC types were favorably accepted in the market. They are used in the manufacture of synthetic leather.

Capital expenditures concentrated primarily on efficiency improvements and replacements.

Above: Our light-weight Elastoflex® W, a polyurethane flexible foam, provides comfortable elasticity for Airbus seats being assembled at the Lufthansa maintenance base in Hamburg.

Below left: Stationary batteries to supply emergency power for a research station are clad in transparent Luran® S injection molded housings which provide convenient visual control of fluid levels.

Below right: The reinforcing action of the (white) spring made out of Cellasto®, our cellular polyurethane elastomer, assures, in combination with the spring bellow, a comfortable bus ride.



Business in engineering plastics expanded

The market for thermoplastic engineering materials was more favorable than for commodity plastics. Volume was higher, earnings satisfactory.

Our line of products for numerous technical, automotive, mechanical engineering as well as electrical industry applications was improved and augmented by special grades.

Development work concentrated on specialties in our Terluran® line. Such properties as increased resistance to mechanical stress, dimensional stability even under exposure to high temperatures, or better transparency, have opened new applications.

We were successful with Ultramid® grades that are more easily processed into composite film for aroma-tight food packages; and new Ultramid types for quality transparent and flexible fishing net fibers.

The production capacities for Ultraform®, a polyacetal, made by Ultraform GmbH, a joint venture of BASF and Degussa, were also well utilized. We produced types with special properties suitable for more applications in engineering fine mechanical parts.

With Ultrason® E, a polyethersulfone, we have introduced a new thermoplastic engineering material. It features outstanding resistance to thermal and mechanical stress. The plastic is used by machinery, airplane and medical equipment manufacturers.

Economic conditions impair markets for reaction plastics

The construction pace slowed markedly in numerous countries, depressed demand for insulating materials and, thus, the Styropor® expandable polystyrene volume. Styrotect® S, a new panel system for thermal roof insulation, found good acceptance. Adverse economic conditions led to a decline in shipments of Styropor grades for packaging applications. Proceeds were unsatisfactory.

Business in polyurethane raw materials was substantially affected by the recession in the construction and automobile industries. Losses were incurred. In Europe we abandoned some business sectors. At the Geismar, Louisiana, works a plant for the production of MDI, a polyurethane raw material, came on stream. Thus, we

now offer a complete line of polyurethane chemicals in the United States.

Despite the difficulties besetting the markets for polyurethane granules and systems, sales reached the previous year's level. Major customers included producers of shoes, of rigid foam for thermal insulation and of automotive parts. In Saudi Arabia Elastopor®, a polyurethane spray foam, now insulates all the roofs of a newly-built city of 2,000 houses. The diversity of polyurethane system applications is exemplified by Elastocoat®, a cast elastomer for dialysis machine filters. In Germany about one million filters are in use presently. As a producer of polyurethane processing machines, Elastogran Maschinenbau delivered one of the biggest double-belt installations for the production of steel construction profiles with a rigid polyurethane foam core.

In connection with the acquisition by the BASF Group in 1971 of the Elastomer-Elastogran Group as well as of the polyurethane knowhow developed therein, the then contract partners have again raised claims against us and have rescinded the agreement of February 1977 which settled the former controversies. In order to clarify the legal position, we have invoked the arbitration proceeding agreed upon.

Reaction resins also developed unsatisfactorily due to the adverse economic trend. We developed in cooperation with customers and suppliers new composite engineering materials for the automobile industry. The materials serve to reduce weight of cars and prevent corrosion. Special mention among the new products goes to a semi-finished part, which cures upon exposure to light. Made out of glassfiber reinforced Palatal®, it is thermoformed like a thermoplastic, but features distinctly superior properties.





Progress in semi-finished and finished parts

Despite the downturn in construction, we strengthened the market position of our Styrodur® extruded rigid polystyrene foam insulation panels. Since the start of production in 1970 until the end of 1981 we have manufactured 2 million square meters of Palusol® fire protection panels. The excellent impact and shock absorbing properties inherent to Neopolen® slab foam and beads, based on polyethylene, generated strong packaging industry demand.

Business in products for the automobile industry was expanded despite the slowdown in the economy. Our engineering material out of polypropylene filled with sawdust for the production of interior door panels found increasing market acceptance. For added weight-savings in cars, development work focusses on thermoplastic formable panels, reinforced by glassfiber mats.

Among the finished polyurethane parts the largest component ever to be cast manually was a 570 kilogram impact buffer for a forging press. It was made with Elastopal®, a compact cast elastomer.

ALUCOBOND wall panels, manufactured out of aluminium and Lupolen® polyethylene, in the entrance to the subterranean facilities of a Swiss power plant.

Beginning with a few basic chemicals, we produce via numerous processing steps chemicals for diverse industrial applications, intermediates for syntheses, and sophisticated finished products such as vitamins, flavors and fragrances. Business in commodity chemicals, directly processed from petrochemical feedstocks, was impaired by economic circumstances. Products requiring more processing steps developed quite satisfactorily under prevailing economic conditions. Altogether sales reached DM 6.5 billion and accounted for 20.5 percent of BASF Group sales.

Proven concept for basic chemicals

In modern, large-scale plants we produce such major basic chemicals as ethylene, ammonia, methanol, sulfuric acid and chlorine from raw materials such as natural gas, oil fractions, sulfur and rock salt. Most of the output of these basic chemicals is processed within the company into more sophisticated products.

Utilization of the plants at our European sites was higher and more consistent compared to a year earlier. In the United States, however, production had to be curbed.

Efficiency improvements introduced to recover the 1981 escalation of raw material prices, especially for natural gas, naphtha and heating oil, succeeded only to a limited extent.

Merchant sales of basic and inorganic chemicals scored appreciable gains in volume and value. Basic petrochemicals produced by our steamcracker at the Ludwigshafen complex contributed to this development. Technical gases and catalysts, in particular, advanced also favorably. A new catalyst for the production of ethylene oxide was added to our line and a plant to produce extrodated and impregnated catalysts was put into operation.

Capital expenditures were devoted to plant modernization, especially the construction of a 450,000 metric tons/year ammonia plant at the Ludwigshafen works. It will replace older facilities.

Business in industrial chemicals varied

Demand for plasticizers and plasticizer alcohols by the plastics processing industries in Europe and North America was soft. The decline in volume in these markets could only be offset in part by exports to South East Asia. In the United States we put a 26,000 metric tons/year plasticizer plant on stream. This batch plant is designed to produce a broad range of plasticizers and permits us to market a complete, multi-faceted line in North America.

Our selection of solvents was augmented by several products fulfilling the newest application requirements and environmental regulations. Shipment of solvents dropped slightly. Due to depressed demand, our ethylene oxide facilities operated at unsatisfactory utilization rates. The Glysantin®

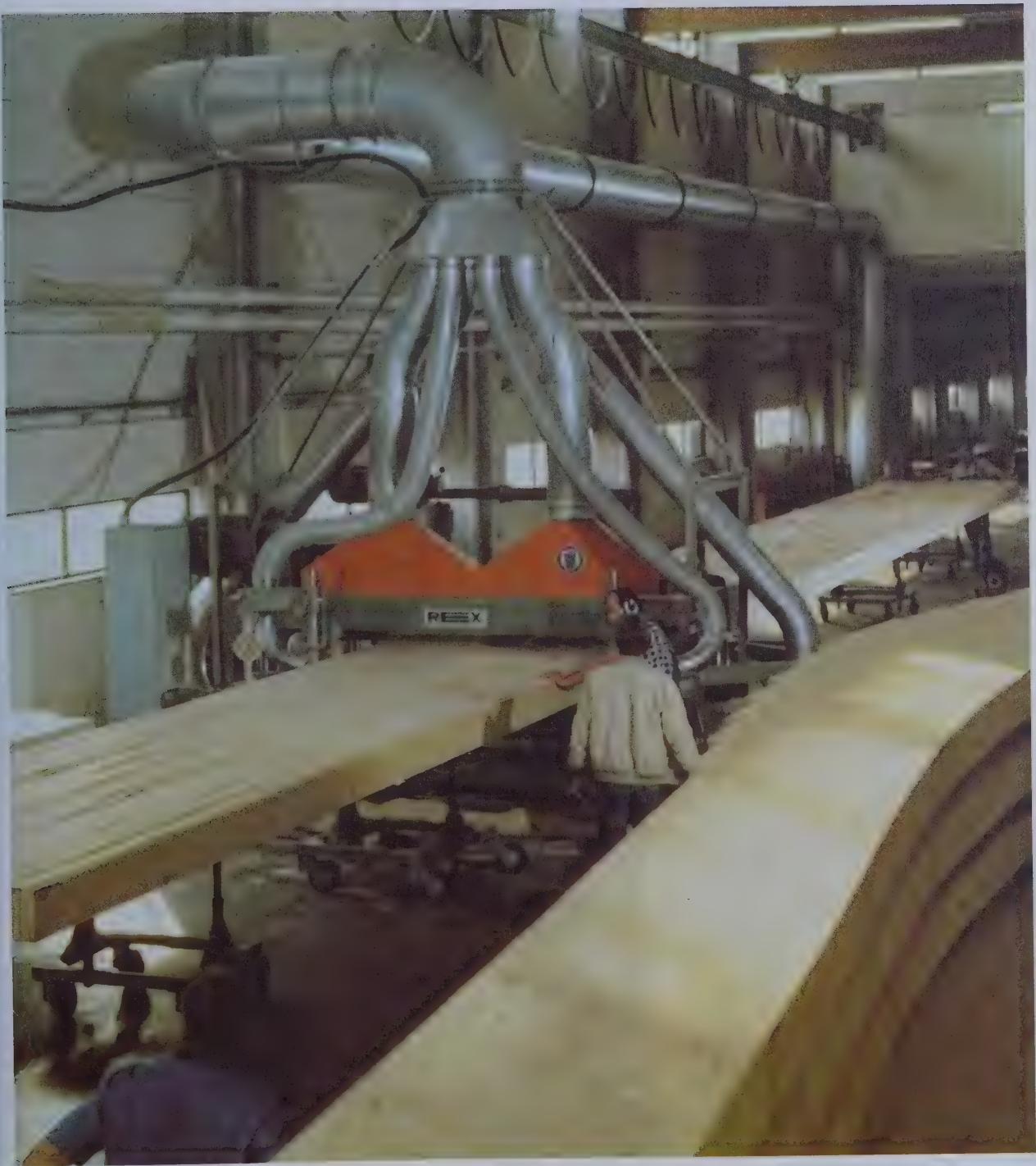
antifreeze and brake fluid volume also decreased, while the outstanding properties of Keropur® and Keroflux® helped these gasoline additives to stay strong in demand despite lower gasoline consumption.

We succeeded to strengthen our business with the rubber industry by introducing new products, including Koretack® tackifier grades and Koreforte® reinforcing resins used to compound rubber for tires. Shipments of Korestab® P, an anti-aging product for rubber articles, improved in part on the strength of a new granulated non-dusting type.

Low-dust Sedipur® grades that play an important role as flocculants in mechanical sludge dewatering, continued to be in good demand in 1981.

The woodworking industry was in a depressed state. Therefore, marked declines in the laminating and impregnating resin volume could not be avoided. Altogether, we held our share of the market. Intensified development efforts resulted in reducing the formaldehyde content in new urea- or melamine-based Kaurit® and Kauramin® laminating resins for the production of all quality types of particle board. These resins fulfill the very stringent regulations governing formaldehyde emissions from particle board, imposed by the building authorities of the Federal Republic of Germany in 1981.

Kaurit glues perform reliably in fulfilling the exacting standards often placed on bonded woods used as building or engineering materials. Introduced 50 years ago, Kaurit has greatly influenced and promoted the technical development of wood processing and, in particular, wood's use as an engineering material.



Intermediates gain appreciably

Sales and earnings in this sector developed favorably. Substantial gains were primarily realized overseas where we enhanced our position.

The various product groups developed unevenly. Amines, of which we make more than anyone else in Europe, held their market shares, although in a number of markets they came under pressure of imports from the United States and Eastern Europe as well as from government subsidized European competitors.

In Camaçari, Brazil, a plant to produce 10,000 metric tons/year of methylamines came on stream. The products are largely processed domestically into crop protection agents and captively into other intermediates and dimethylformamide, a solvent.

Diols, intermediates for foamed plastics, thermoplastics and polyester resins, achieved appreciable gains in sales. Derivatives of carbonoxichloride also developed favorably; new products were added to our line.

Dyestuff intermediates continued to be burdened by unfavorable conditions in the textile industry, but demand for our monocarbonic acids was steady. To secure our market position, we put a 100,000 metric tons/year formic acid plant into operation at the Ludwigshafen complex; the plant uses a BASF process with a particularly advantageous energy balance.

More nutritional products

Despite a sluggish world market we succeeded again to expand our market shares in animal feed and, in particular, to achieve notable growth rates with our line of Luprosil® preservatives. The vitamin volume was satisfactory. However, shipments and proceeds of fodder phosphates did not meet expectations. With the start-up of vitamin B₃ production we augmented the range of products for animal feed industries. With the completion of compounding facilities for vitamin A and E in Brazil and Mexico we improved the supply to Central and Latin American markets. New and expanded facilities for vitamin precursors were put into operation at the Ludwigshafen works. As a result our vitamins are now entirely based on captively produced basic petrochemicals.





The vitamin operations acquired on January 1, 1982 from Grindsted Products A/S, a Danish company, headquartered in Brabrand, are now being conducted by BASF Vitaminfabrik A/S, Grenaa. With the addition of its vitamins C, B₁, B₂ and B₆ to our range of products for the feed, food and pharmaceutical industries, we are now in a position to market a broad vitamin palette out of our own production.

Business in fine chemicals continued to expand in all major markets. Supported by new products as well as bigger production capacities, synthetic one-component fragrances, in particular, achieved considerable sales gains.

Our product line for the cosmetics industry, notably the Luviskol® grades, fared particularly well in a depressed market. Business with the food and pharmaceutical industries developed satisfactorily. We responded to the increased demand for β-carotin and the broadly effective PVP iodine antiseptic with increased production capacities.

Business in flavors and fragrances was subjected to the recession, especially in North America, with the result that sales declined. We intensified our efforts to expand into markets beyond North America where our business is now largely concentrated.

Fiber raw materials retained market shares

Following the pattern of the previous year a number of European synthetic fiber producers shut down or reduced capacities. Our volume of sales was affected accordingly. Business in the United States and in other overseas markets developed satisfactorily until mid-year, but then deteriorated substantially under the impact of the North American recession. In Asian markets, too, business began to lag and created intensified competitive pressures. A decline in volume had to be accepted; prices could not be increased sufficiently to recover higher costs.

However, the close integration of our facilities with other operations benefitted plant utilization.

Quality heat-resistant wire coatings produced with various BASF intermediates insulate copper wires for the electrical industry.

Capital expenditures and development work concentrated on process improvements, primarily in respect to feedstock and energy consumption, as well as the reduction of byproducts. Efforts to strengthen our position in spin polymers for nylon 6, nylon 66 and polyester were also given priority.

Fiber business improved

Activities in fibers continued to be conducted predominantly in North America. Following a temporary recovery during the first six months of the year, volume declined significantly in almost all product areas under the severity of the U.S. and Canadian recessions. Nevertheless, we succeeded in advancing sales and maintaining earnings.

This development was supported in particular by sales of nylon filaments and yarns for carpets and, in addition, by quality improvements in our acrylic and nylon yarn lines. The start-up of the spin-draw-texturing facilities for carpet yarns at the Anderson, South Carolina, works was completed.

Sales of our nylon yarns, acrylic fibers and yarns to the apparel industry decreased slightly. Depressed demand created price pressures. We responded with the introduction of new products. To capitalize better on market opportunities, we expanded the spinning capacity for acrylic yarns at our Williamsburg, Virginia, site.

Dyestuffs and Finishing Products

Dyestuffs, pigments, auxiliaries and finishing products represent a significant part of BASF Group operations. Our products are as diverse as the markets we serve throughout the world. Our multifaceted product line helped us to surmount many an economic difficulty. Earnings, however, were unsatisfactory, since severe competitive pressures prevented full recovery of cost increases in most product sectors. Altogether we achieved DM 4.4 billion in sales, representing 13.9 percent of BASF Group sales.

Business with the textile industry lacks momentum

Sales advanced to a small extent, but earnings declined due to higher costs.

Demand for textiles made out of natural fibers continued to be maintained and benefitted the sales volume of dyestuffs and auxiliaries for dyeing and finishing cotton. For example, we expanded our position in reactive dyes on the strength of the success of a new advance in textile printing. Continued demand for jeans apparel led to satisfactory shipments of indigo. The trend to cotton also spurred the volume of our sizing, pre-treatment and finishing agent sales.

Our new products to make polyester fibers optically brighter, sold under the Ultraphor® tradename, were introduced within a short period of time. A new concept in dyeing polyester fibers and blends fast and efficiently is being offered to our customers with the new Palanil® Highspeed System. It saves work and energy and decreases the risk of uneven dyeing. On the whole, business in dyestuffs and textile chemicals for synthetic fibers developed unsatisfactorily.

In the United States efficiency improvements began to prove their worth. Stagnation continues to beset the Japanese textile industry; moreover, its exports were hindered by the higher valuation of the Yen. Accordingly, the business of Mitsui Badische Dyes, a joint venture in textile dyestuffs with Mitsui Toatsu Chemicals, was unsatisfactory and incurred a loss.

With the start-up of a plant in Brazil to produce dispersion and vat dyes, we are able to supply this major growing textile market with locally manufactured products. The unfavorable economic climate in the Brazilian textile industry created by the domestic recession caused sales to fall short of expectations.





Pigments and non-textile auxiliaries improved abroad

Due to the higher export volume, business was better than anticipated, but the surge in feedstock costs led to unsatisfactory proceeds. Inspite of severe competition, we succeeded to maintain or, in some instances, expand our market shares. However, depending on developments in customer industries, business varied substantially.

Our shipments to the printing ink industry, the most important market for pigments, advanced, primarily abroad. Our Heliogen® blue T-types are now available in a complete range of smudge-proof phthalocyanine blue pigments. New to the line are two quality Lithol® rubin pigments for the manufacture of offset printing inks.

Lower consumption of coatings and paints affected business in this sector. We developed new organic yellow and red pigments with excellent coverage. The pigments generated considerable interest among producers of quality industrial coatings. A heretofore unknown color brilliance is achieved with our new Sicocab® pigment preparations for use in metallic automotive finishes. Sicorin® and Sicor® anti-corrosion pigments also fared successfully.

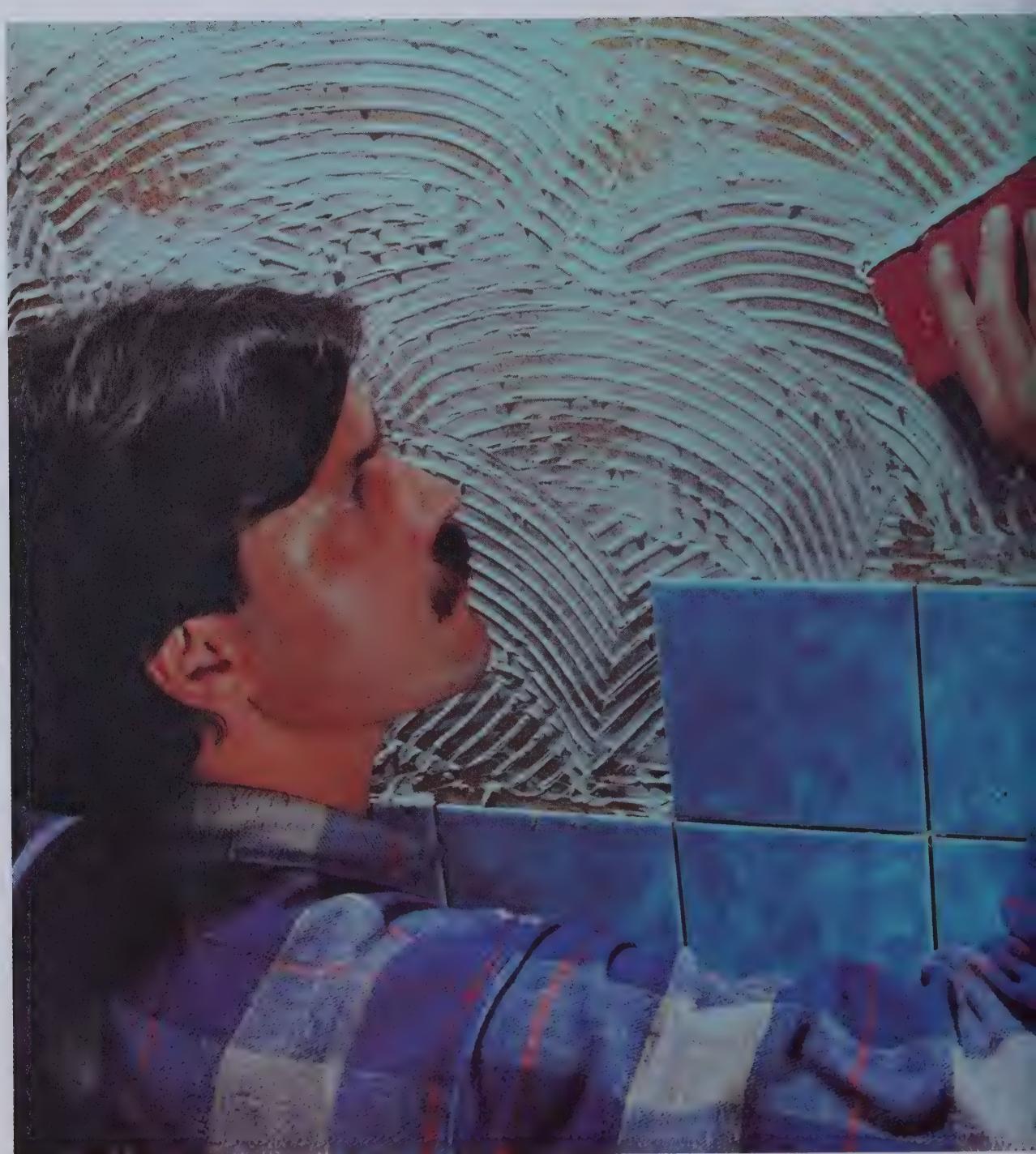
The plastics processing industry was depressed throughout the world. Nevertheless our broad selection of pigment preparations for coloring all major types of plastics served to strengthen our market position. Great interest was accorded our new line of Euthylen® pigments, designed to color polyethylene film.

The favorable development in the leather and fur industry spurred business in pre-treatment, tanning, coloring and finishing products. We abandoned production of spermoil-based fat liquors for leather due to lack of raw material availability. BASF India expanded its plant for the production of tanning agents.



In their application Basazol®-C and Fastusol®-C paper dyestuffs minimize the work load and energy needs and eliminate any burden on the environment. The effluent draining out of the color saturated pulp emerges from the metal screen clear and colorless.

The chemistry inherent to attractive fabrics helps fashion designers to realize their creations. The elegant drape of the fabric, made out of polyester fibers, is enhanced by its coloring with our Palanil dyestuffs.





After a good start in the first half of the year, the pace of the paper industry began to slow. Our new basic dyes helped to improve our market position. Overseas we achieved progress with retention agents and antifoams. To cope with problems of strength and whiteness in the production of recycled paper, an increasingly important business, we introduced Luredur® synthetic agents to provide dry strength, plus recipes, based on our products, for the removal of printing inks and for bleaching. All were favorably accepted.

Success marked our business with non-ionic surfactants and softeners for the detergents industry as well as products for the manufacture of polishes. The introduction of a detergent additive to prevent undesired residues in laundering, such as lime deposits, led to the establishment of a promising business.

Manifold applications for dispersions

Volume was slightly greater than in the previous years; sales rose on the strength of increased prices. Yet higher costs could only be absorbed in part and, therefore, led to a decline in earnings.

Business in acrylic monomers developed favorably. Sales climbed appreciably. The gain in volume was primarily achieved in overseas markets.

Shipments of auxiliaries and binders for the production of quality coated papers attained the previous year's level.

The introduction of improved Diofan® grades for coating plastic film enhanced our strong market position.

In raw materials for the adhesives sector, the Acronal® dispersion volume developed positively, benefitting in particular from sales of a new polymer dispersion for the manufacture of building industry adhesives. Despite intensified competition, we maintained our market leadership in binders for tile adhesives. In the area of building chemicals we continued the introduction of Acronal S 400, a polymer dispersion for the production of elastic mortar, sealants and roof coatings.

Polymer dispersions contribute importantly to the ease of handling and efficient application characteristics of modern adhesives, such as the Acronal-based types for setting tiles.

Shipments of dispersions for use in paints and plasters declined. Several new binders, based on polyacrylic esters and intended for full thermal insulation applications, an expanding business, met increasing interest. Development work conducted in cooperation with customers yielded promising results in corrosion protection with aqueous systems using Acronal 290 D.

Demand for plastic resins and auxiliaries for coatings was subjected to the lag in construction and the uneven development in various industries processing coatings. An appreciable volume was achieved with Luhydran® grades for the manufacture of cataphoretic electro-deposition dip coatings for priming technical equipment such as automotive accessories and household appliances. Similarly successful were Laromer® grades for producing coatings that cure quickly upon exposure to electron beams. The aldehyde resin, introduced in the previous year to complete our Laropal® line, found favorable market acceptance.

Acronal grades for dispersion-bound non-wovens scored substantial gains in volume. Responding to market requirements we augmented our broad selection with acrylate-based binders for use in non-wovens for hygienic applications.

Consumer Products

The business includes primarily products sold directly to end users: coatings and paints, audio, video and computer products, photo-polymer printing plates as well as pharmaceuticals.

Coatings and paints developed satisfactorily and succeeded to enhance their position in the market. Notable growth momentum characterized the video market; we are vigorously pursuing the expansion of our capacities.

Business in printing inks, data processing products and pharmaceuticals was less affected by the lag in the economy.

Total sales reached DM 3.8 billion or 12.1 percent of BASF Group sales.

Coatings and paints secured market shares

In the European market sales attained the previous year's volume. Exports compensated for the softness of the German market. Successes in automotive coatings and refinishes were offset by declines in industrial coatings and building paints. Economic developments in Brazil resulted in a distinct drop of volume for automotive coatings and refinishes. Because we are the leading supplier of building paints, we were able to avoid the full impact of the recession on our business.

Plant utilization in the various operations fluctuated to a larger extent than in the preceding year. Environmental and safety regulations imposed greater cost burdens.

In spite of a difficult building paints market such Glasurit coating systems as Lasutec®, the Profi-Mix® color blending system, as well as the established Glasurit® EA and Seiden Star products proved to be cornerstones of our business. The Herbol® thermal insulation system and the Herboflex® grades for thermal insulation and restoring deteriorated facades held their market shares successfully. These systems are predominantly used in renovating old buildings.

Primers and two-coat metallic coatings for automotive assembly lines made an above-average contribution to the increase in volume.

Research produced coatings that fulfill requirements for high-speed production of two-part beverage cans. Improved elastic, resistant coatings for on-line sheet metal production free household appliance manufacturers of the need to apply additional coats.

In electro-insulation systems we concentrated on raw material savings. We introduced a water-soluble wire coating that features thermal and mechanical properties matching those of solvent-containing grades produced on the same basis.

Considerable interest was generated by the contact process which we developed for the furniture industry. It replaces coatings containing a high percentage of solvents and, thus, helps to save material and work. The process was also well accepted by manufacturers of boards, panels and parquet flooring.

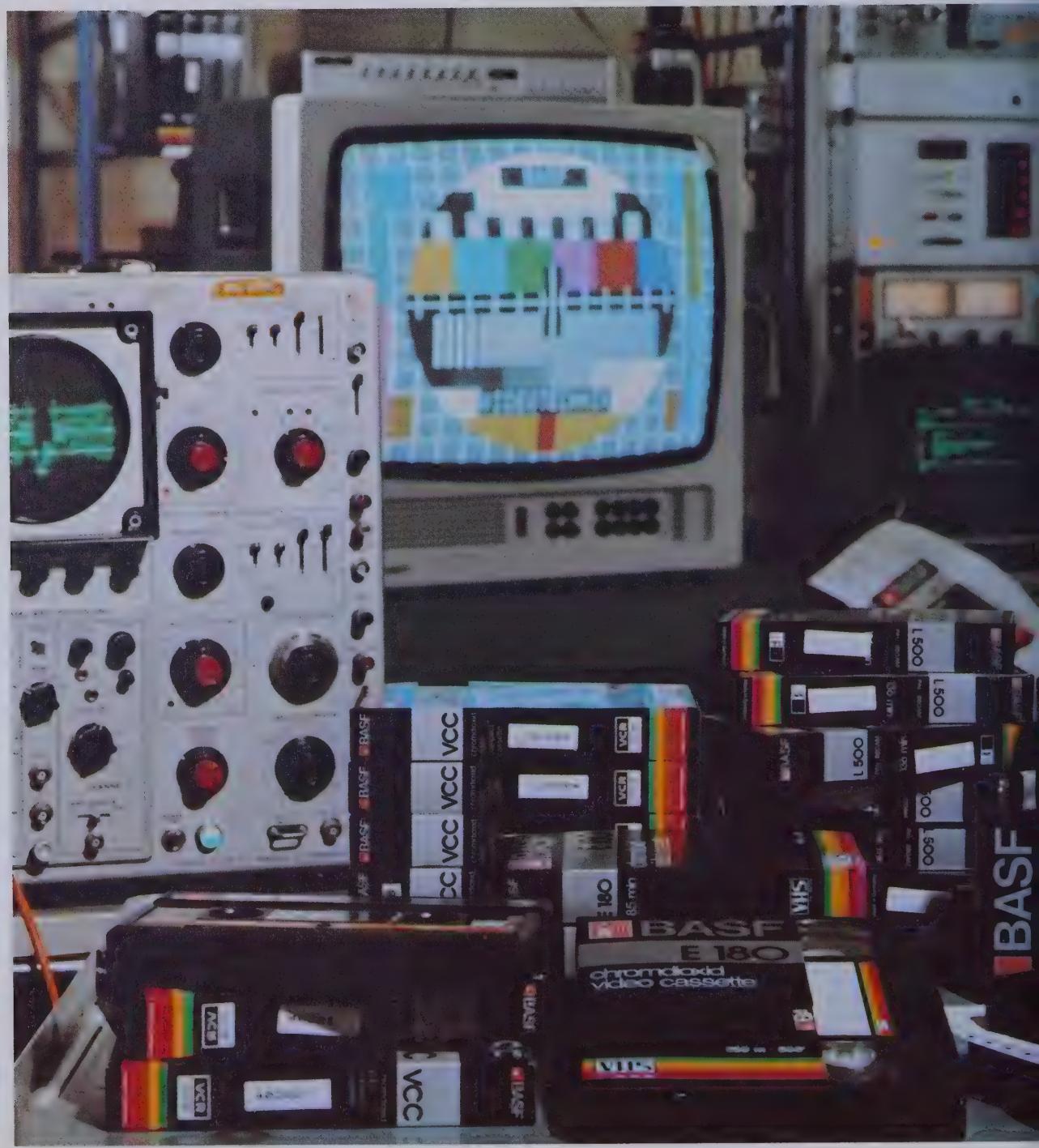
For automotive applications we introduced, specifically for wheels, metallic and one-coat paints which cure upon exposure to electron beams, and for large vehicles, a top coat which cures quickly and realizes material savings due to the density of its solids. Our selection of automotive refinishes was augmented by a surfacer which is easily applied and dries fast. In addition we began to market a product which improves adhesion between the new and old paint. It obviates the time-consuming task of sanding the old coating.

Development work in printing inks led to sheet-fed offset printing inks that retain their viscosity during downtime and, yet possess all the quality characteristics, including fast drying, required for the press run. A new rotary web offset color series dries under exposure to heat, yet features a bright gloss. Also added were Heliodesin WG glossy water-based inks for corrugated cardboard, millboard and paper as well as a flexo screen color series for composite film and frozen food packages.

Capital expenditures concentrated on plant expansions and efficiency improvements. Cathodip® production facilities were enlarged at the Muenster-Hiltrup site. In Spain the relocation of production to Guadalajara was initiated.

Flexo-printed with K + E® inks, the packaging material is checked for register and the sharpness of the screened dots under a magnifying glass.







Growth in information media

Sales of audio and video products advanced appreciably. In audio the gain was largely contributed by "Chromdioxid Super" compact cassettes. In addition we continued to improve our market position with high quality "Ferro Super LH 1", "Chromdioxid II", "Ferrocrom", and "Chromdioxid Super II" compact cassettes. Business in magnetic tapes sold to duplicators of cassette recorded music was also successful.

The expansion of video tape and cassette manufacturing facilities at the Willstaett works and the Bedford, Massachusetts, site in the United States, enabled us to participate increasingly in the rapidly growing market. The plants operated at full capacity. We are the only producer to supply cassettes for all video systems. In Ettenheim, West Germany, an additional plant for the manufacture of video cassettes is under construction.

Magnetic storage media for electronic data processing strengthened their standing in the market. The enlarged manufacturing facilities were fully utilized. We succeeded to penetrate the market with compatible central processing units. Our line of peripheral equipment was supplemented by new tape drives and high-speed printers. We were not successful with our fixed disk drives in North America and therefore decided to abandon their production at the Los Gatos, California, plant of BASF Systems Corporation.

Compared to the previous year sales of products serving the graphic arts increased in volume despite the difficult business conditions facing the printing industry. In particular, we fortified our strong market position in newspaper printing within the Federal Republic and other European countries. The marketing of our new flexo printing plate was continued successfully. Nylotron® dry film resist was introduced. A new plant to produce newspaper printing plates was put into operation at the Willstaett works.

Testing the recording quality of video cassettes.
We supply them for all systems.

New pharmaceutical specialties

Sales advanced appreciably on the strength of newly introduced pharmaceutical specialties and favorable business outside of Germany.

In the year under review, Knoll AG began to market Regulton®, a blood pressure regulating preparation, and Afonilum®, a drug for the treatment of bronchial asthma. Isoptin®, a calcium antagonist developed by us, received approval for sale in the United States where this group of drugs is regarded as a major advance in the treatment of heart and circulatory diseases.

Dialysis solutions and concentrates were strong in demand. To complete our range of quality infusion solutions, we introduced amino acid solutions for parenteral feeding to our Infugutt® line.

Business in pharma chemicals grew slightly. New products found a ready market.

Our plants operated at satisfactory utilization levels. New production facilities were put into operation in Brazil.

Operations by Region

We conduct business in 140 countries and operate production sites in 31. About three-fourths of the total Group output originates in the Federal Republic of Germany. Exports by German members of the BASF Group totaled DM 11.4 billion.

The BASF Group is active in many countries with varying political, economic and social structures. In agreement with the OECD recommendations of 1976 we recognize our manifold responsibilities to these nations.

Business in Europe stagnant

As recessionary trends took hold towards the end of the previous year, a general stagnation began to inflict the economies of nearly all European countries. The anticipated recovery failed to materialize.

In Germany, sales matched the previous year's volume; exports, however, were higher. In France, biggest in volume among our European markets outside of Germany, consumer-oriented businesses tended to recover to a small extent in the fall. We capitalized on this opportunity with increased sales. Commodity plastics developed as unsatisfactorily as in all other countries.

In the Benelux countries, Great Britain and Scandinavia, business in agricultural products was satisfactory.

We achieved a slightly higher volume in Spain and secured our market shares. Earnings, however, declined because cost increases could not be fully offset by price adjustments. The relocation of the production facilities for coatings and paints to Guadalajara progressed on schedule.

Despite increased import hindrances and the structural problems of customers, we managed to maintain our position in the Italian market and expand sales of pharmaceuticals.

In Austria our consumer products sold well. We held our market position in Switzerland; here, as well as in Portugal, the decrease in commodity plastics was compensated by higher sales of specialties.

Due to the deterioration of trade conditions the volume of business conducted with the state-controlled economies of Eastern Europe declined for the first time in many years. The slump in business with Poland was severe. In addition, measures initiated by most countries to improve their balance-of-payments positions impaired our sales volume. We paid special attention to securing the financial basis for our business transactions.

Expansion of operations in North America

A slight economic recovery evident in the United States during the first half of the year dissipated again into a recession. The automotive and construction industries were hit hardest. Altogether sales advanced 12.5 percent to U.S. \$ 1,913 million.

BASF Wyandotte Corporation, our biggest company in North America, incurred declines in sales and earnings of polyurethane chemicals and Styropor expandable polystyrene. Antifreeze was also subjected to a decrease in volume, while crop protection products, in particular Basagran, an established soybean herbicide, had a successful year again.

The consolidation of our dyestuff business has been largely completed. We expanded the Styropor production facilities at the South Brunswick site and completed the plant for the production of MDI, a polyurethane raw material, at the Geismar works. Intermediates and solvents sold well.

The business of Badische Corporation developed satisfactorily until the fourth quarter when declines in sales had to be accepted. Process conversions for nylon carpet yarns at the Anderson works as well as the expansion of the spinning facilities at the Williamsburg site were completed.

The plasticizer business was consolidated in Badische Corporation.

Market conditions for data processing equipment forced us to abandon this product sector in the United States. We will concentrate on the magnetic media market. In connection with the cessation of the activities in peripheral equipment, BASF Systems Corporation incurred a loss.

Knoll Pharmaceutical Company developed appreciably following government approval for the introduction of the intravenous type of Isoptin®, a drug for the treatment of circulatory diseases.

The general economic development caused a decline of sales at Fritzsche Dodge & Olcott. Intermediates for the food industry were particularly affected.

By year-end we acquired the shares of Cook Industrial Coatings Incorporated in full. The company is well positioned to supply the automotive coatings market.

In the proceedings initiated by the Federal Trade Commission in regard to the acquisition of the Pigments Division of Chemetron



BASF GROUP SALES BY REGION

	1980	1981
European Community	17,611	19,370
	1980	1981
North America	3,078	4,120
West Europe, excl. European Community	2,491	2,585
South and East Asia, Australia	1,389	1,889
Latin America	1,385	1,794
Africa, West Asia	829	1,129
East Europe	948	879
	27,731	31,766

Corporation in 1979, the hearing of the evidence was ended.

Sales of BASF Canada, our local affiliate, reached nearly Can. \$ 200 million, but earnings fell short of the previous year's level.

Uneven development in Latin America

Although Brazil experienced its severest recession in the post-war era, our local affiliates held their ground. Substantially higher credit costs as well as measures aimed to balance the country's payments position, plus programs to curb inflation, prompted a decline in consumer demand and a reduction of inventories at almost all production levels. The automotive, capital goods and chemical industries were primarily affected.

At the Guaratinguetá works of BASF Brasileira facilities for the production of textile dyes and for compounding vitamins A and E, and at the Camaçari, Bahia, site, a plant to produce 10,000 metric tons/year of methylamines and derivatives, were put on stream.

Despite a decrease in shipments of industrial coatings and automotive refinishes, Glasurit do Brazil achieved satisfactory earnings on the strength of a favorable performance in building paints. The company started market introduction of Cathodip and coatings for cannisters.

In Mexico we utilized the growth of the economy for a further expansion of our market position. Compounding facilities for vitamin A and E were put into operation. Fire and explosion damage interrupted output at BASF Mexicana.

At the facilities of BASF Venezolana, relocated to Tumero, Venezuela, production of dispersions and auxiliaries came on stream. In Colombia sales were higher; a profit was realized. Business with products manufactured in our Argentinian plants developed unsatisfactorily.

Above: Crop protection products and foliar fertilizers, applied simultaneously, keep the crop of potatoes being grown in Colombia at an elevation of 2,800 meters healthy.

Operations by Region





The lower valuation of the DM improved our competitiveness in exports to Latin America. As a result, shipments increased.

Exports were, however, hindered by structural problems in major customer industries and, in addition, by payment problems created by foreign exchange shortages in a number of countries.

Compared to the previous year, fertilizers, crop protection agents, products for animal feed, pigments and auxiliaries, intermediates and also plastics registered higher sales volumes. Fiber raw materials and industrial chemicals were off.

Higher sales in Africa and West Asia

The comparatively good foreign exchange position of Nigeria, an oil producing country, as well as the favorable economic conditions in South Africa offered opportunities to increase our volume in both of these markets during the year under report.

In Western Asia, in particular Saudi Arabia and Iran, we were able to increase sales. A chronic lack of foreign exchange and escalating inflation rates burdened business in many other of the approximately 60 nations in which we operate.

Altogether, sales increased 36.2 percent to DM 1,129 million. Much of this gain is attributable to urgently required increases in selling prices, and, to a lesser extent, to the valuation of the U.S. Dollar opposite the DM, which improved our competitive position.

We managed to hold our market shares.

Market conditions in this region do not make the construction of new production facilities feasible. Capital expenditures were therefore limited to smaller expansions and efficiency improvements of our existing facilities.

Continued expansion in South and East Asian, Australian markets

In 1981 the economies of many countries in this region again realized substantial growth. Our exports and sales of products out of local production facilities profited from the advantageous economic climate and, in addition, the higher valuation of the U.S. Dollar against the DM. Altogether sales increased 36 percent to DM 1,889 million.

In Japan, our most important market in this area, the growth of the GNP, supported by strong exports, exceeded the 5 percent inflation rate by 1 percent. We improved our market position and increased sales. Business in organic intermediates, dispersions as well as audio and video cassettes developed appreciably. In the agricultural market the introduction of Ronilan, a fungicide, was marked by successes. Prices of textile dyestuffs dropped substantially.

Yuka Badische Company, a joint venture with Mitsubishi Petrochemical Company, expanded its dispersion production facilities.

Aside from Japan, our major markets were China, Hongkong, India, Australia, South Korea, Indonesia, Thailand and Taiwan. Chief contributors to sales were fiber raw materials, textile chemicals, pigments and auxiliaries, industrial chemicals and fertilizers. We succeeded to expand our position in most of these markets.

Because the People's Republic of China and Hongkong continue to gain importance as major markets for our products, we began to establish our own sales organization.

Production facilities of Glasurit do Brasil in São Bernardo do Campo. The affiliate is one of the leading producers of coatings in Brazil.

Financial Review

Affiliates

BASF GROUP

The BASF Group includes BASF Aktiengesellschaft and all companies which are at least 50 percent owned by BASF Aktiengesellschaft or its majority holdings, as well as the majority holdings of companies in which a 50 percent participation is held.

COMPANIES INCLUDED IN CONSOLIDATION

Included in the consolidation of BASF Aktiengesellschaft and Consolidated German Subsidiaries are BASF Aktiengesellschaft and the German affiliated companies in which BASF Aktiengesellschaft directly or indirectly holds a majority participation. The Group consolidation comprises BASF Aktiengesellschaft and its directly or indirectly majority-owned German and foreign subsidiaries. In addition, it includes half of the German and foreign 50 percent

participations. Companies of minor importance and companies not included in the consolidation because their inclusion would impair the value of disclosures in the financial statements, are neither included in the Group consolidation nor in the consolidation of BASF Aktiengesellschaft and Consolidated German Subsidiaries. Subsidiaries not included in the consolidation of BASF Aktiengesellschaft and Consolidated German Subsidiaries are listed on pages 59 and 60 under notes to the Consolidated Financial Statements.

I. Companies included in the Group and Consolidated Financial Statements

Company name and headquarters	Holding ¹ in percent	Capital stock ² in million currency
BASF Aktiengesellschaft, Ludwigshafen		DM 2,032.5
BASF Farben + Fasern AG, Hamburg	100	DM 115.0
BASF Kraftwerk Marl GmbH, Marl ³	100	DM 25.0
Dr. Beck & Co. AG, Hamburg ³	100	DM 3.0
Burbach-Kaliwerke AG, Kassel	98.8	DM 34.0
Chemische Düngerfabrik Rendsburg GmbH, Rendsburg ³	100	DM 0.1
Chemische Fabrik Kalk GmbH, Cologne ³	100	DM 30.0
Chemische Fabrik WIBARCO GmbH, Ibbenbueren ³	100	DM 7.2
Chemische Werke Minden GmbH, Minden ³	100	DM 1.0
Compakta-Werke Baustoff-GmbH, Traunreut ³	100	DM 1.0
COMPO GmbH Produktions- und Vertriebsgesellschaft, Muenster-Handorf	100	DM 4.0
Deitaplast Kunststoff-Technik GmbH, Lemfoerde ³	100	DM 1.0
Elastogran GmbH, Lemfoerde	100	DM 60.0
Elastogran Kunststoff-Technik GmbH, Lemfoerde ³	100	DM 1.0
Elastogran Maschinenbau GmbH, Lemfoerde ³	100	DM 3.1
Elastogran Polyurethan-Chemie GmbH, Lemfoerde ³	100	DM 0.8
Elastogran Polyurethan-Systeme GmbH, Lemfoerde ³	100	DM 2.3
Erdöl-Raffinerie Mannheim GmbH, Mannheim	100	DM 60.0
Gewerkschaft Auguste Victoria, Marl	100	mining shares 100
Gewerkschaft Haidkopf, Celle ³	100	mining shares 100
Guano-Werke AG, Hamburg	97.1	DM 16.8
Kali-Bank AG, Kassel ³	100	DM 6.0
Kali und Salz AG, Kassel	71.7	DM 250.0
Knoll AG, Ludwigshafen	100	DM 45.9
LUWOGE Wohnungsunternehmen GmbH, Ludwigshafen ³	100	DM 78.0
M. R. Kunststofftechnik GmbH, Diepholz ³	100	DM 0.1
Nordmark-Werke GmbH, Hamburg	100	DM 20.0
Oranienburger Chemikalien AG, Frankfurt/Main ³	100	DM 6.0
SCHI-WA Arzneimittelwerk GmbH, Glandorf	100	DM 6.0
Transpharm GmbH, Ludwigshafen ³	100	DM 4
Værst (AG & Co.), Hamburg	87.5	DM 5.0
Wintershall AG, Celle/Kassel	100	DM 300.0
Wintershall Mineralöl GmbH, Duesseldorf ³	100	DM 16.0
Wintershall Rohölversorgungs-Gesellschaft mbH, Kassel	100	DM 10.0

II. Companies included in the Group Financial Statements only

Company name and headquarters	Holding ¹ in percent	Capital stock ² in million currency
Ammoniak Unie B. V., Utrecht	50	hfl 12.0
A/S Badilin, Copenhagen	100	dkr 10.5
Badische Corporation, Williamsburg, Virginia	100	US \$ 122.9
including 2 North American majority-owned affiliates		
BASF AG & Co. Ges. m. b. H., Vienna	100	S 273.0
BASF AG für Chemieverfahren, Chur	100	sfr 2.0
BASF America Corporation, Parsippany, New Jersey	100	US \$ 291.1
BASF Antwerpen N. V., Antwerp	100	bfr 2,500.0
BASF Argentina S. A., Buenos Aires	100	Arg \$ 66,335.0
BASF Australia Ltd., Melbourne	100	A \$ 4.0
BASF Brasileira S. A., Indústrias Químicas, São Paulo	100	Cr \$ 6,305.5
BASF Canada Inc., Montreal	100	Can \$ 34.7
BASF Chemiewerte-AG, Zurich	100	sfr 0.1
BASF Chimie S. A., Brussels	100	bfr 100.0
BASF de México, S. A. de C. V., México, D. F.	100	Mex \$ 430.3
BASF Española S. A., Barcelona	100	Pta 1,500.0
BASF Farben + Fasern Ges. m. b. H., Vienna	100	S 26.4
BASF Finance Europe N. V., Arnhem	100	hfl 46.4
BASF Holding-AG, Zurich	100	sfr 1.0
BASF India Ltd., Bombay	50	iR 15.8
BASF Japan Ltd., Tokio	100	Yen 2,820.0
BASF Mexicana, S. A., México, D. F.	100	Mex \$ 283.0
BASF Nederland B. V., Arnhem	100	hfl 3.5
BASF Österreich Gesellschaft m. b. H., Vienna	100	S 87.5
BASF Overzee N. V., Willemstad	100	NAfI 17.9
BASF Química Colombiana S. A., Medellin	100	Col \$ 190.0
BASF Química da Bahia S. A., Camaçari-Bahia	82	Cr \$ 1,642.2
BASF (Schweiz) AG, Waedenswil, Au	100	sfr 6.0
BASF Svenska AB, Goteborg	100	skr 5.0
BASF Systems Corporation, Bedford, Massachusetts	100	US \$ 42.0
BASF Transatlantica, S. A., Panamá	100	US \$ ^4
BASF United Kingdom Ltd., Cheadle, Cheshire	100	£ 0.8
BASF Venezolana S. A., Caracas	100	Bs 23.4
BASF Wyandotte Corporation, Parsippany, New Jersey	100	US \$ 182.2
including 3 North American majority-owned affiliates		
CIS AG, Liestal	100	sfr 4.3
Compagnie Chimique de la Méditerranée S. A., Berre-l'Etang	50	ffr 50.0
Compagnie Française BASF S. A., Levallois	100	ffr 40.0
Danubia Olefinwerke Ges. m. b. H., Schwechat	50	S 420.0
Delfzee B. V., Den Haag	100	hfl 12.0
Delfzee Dubai Handel mij. B. V., Den Haag	100	hfl ^4
Delfzee Dubai Petroleum N. V., Den Haag	100	hfl 25.0
EBEWE Arzneimittel Ges. m. b. H., Unterach	66.7	S 14.4
Fritzsche Dodge & Olcott, Inc., New York, New York	100	US \$ 127.5
including 11 majority-owned affiliates		
Gewerkschaft Victor, Chemische Werke, Castrop-Rauxel ³	50	mining shares 1,000
Glasurit do Brasil Ltda., São Bernardo do Campo	100	Cr \$ 2,647.1
including 1 majority-owned affiliate		
Glasurit S. A., Madrid	99.1	Pta 328.0
Interknoll AG, Liestal	100	sfr 0.8
Isonor Indústria de Plásticos S. A., Recife	97.5	Cr \$ 160.5
Isopor Indústria e Comércio de Plásticos Ltda.,		
São Bernardo do Campo	100	Cr \$ 250.2
Knoll AG, Liestal	100	sfr 2.2
Knoll Pharmaceutical Company, Whippiany, New Jersey	100	US \$ 2.4
Knoll S. A., Rio de Janeiro	100	Cr \$ 1,188.1
Laboratoires BIOSEDRA S. A., Malakoff	100	ffr 24.5
Nupharma AG, Liestal	100	sfr 0.2
Peintures + Encres BASF S. A., Le Bourget	95.1	ffr 28.4
Pharmasythèse S. A., St. Pierre-les-Elbeuf	100	ffr 1.0
Produits et Engrâis Chimiques du Rhin S. A., Ottmarsheim	50	ffr 131.3
Rheinische Olefinwerke GmbH, Wesseling ³	50	DM 300.0
M. Schaefer AG, Wabern	100	sfr 2.0
Suma S. A., Gien (Loiret)	100	ffr 45.0
Yuka Badische Company Ltd., Yokkaichi	50	Yen 1,600.0

¹ Participations of BASF Group companies

² Nominal or paid-in capital for foreign companies

³ Profit transfer agreements between these companies and their parent companies

⁴ The capital of these companies totals less than 50,000 in respective local currency

Major Affiliates / Germany

Company name and headquarters	Products	Number of employees
BASF Farben + Fasern AG, Hamburg	Coatings, paints, printing inks, pigments, fiber technology	6,207
BASF Kraftwerk Marl GmbH, Marl	Electricity	214
Elastogran GmbH, Lemfoerde ³	Polyurethane systems, machinery and equipment for polyurethane processing, thermoplastic engineering materials and polyurethane engineering parts	1,321
Erdöl-Raffinerie Mannheim GmbH, Mannheim	Petroleum products	453
Gewerkschaft Auguste Victoria, Marl	Coal	5,846
Gewerkschaft Victor, Chemische Werke, Castrop-Rauxel	Fertilizers	1,244
Guano-Werke AG, Hamburg	Fertilizers	778
Kali und Salz AG, Kassel	Potash, rock salt, inorganic chemicals, fertilizers	8,899
Knoll AG, Ludwigshafen	Pharmaceuticals, pharmaceutical chemicals, hospital supplies	2,170
Nordmark-Werke GmbH, Hamburg	Pharmaceuticals	881
Rheinische Olefinwerke GmbH, Wesseling	Polyolefins, styrene, butadiene, epoxy resins, thermoplastic rubber	3,349
Wintershall AG, Celle/Kassel	Crude oil, natural gas, petroleum products	3,318

Major Affiliates / Abroad

Company name and headquarters	Products	Number of employees
Europe		
Ammoniak Unie B. V., Utrecht, Netherlands	Ammonia	45
BASF Antwerpen N. V., Antwerp, Belgium	Fertilizers, plastics, intermediates for plastics and fibers, chemicals	2,864
BASF Española S. A., Barcelona, Spain	Plasticizers and intermediates, plastics, plastic dispersions, auxiliaries, crop protection products, compact cassettes	982
Compagnie Chimique de la Méditerranée S. A., Berre-l'Etang, France	Polyethylene	130
Danubia Olefinwerke Ges. m. b. H., Schwechat near Vienna, Austria	Polyethylene	260
Glasurit S. A., Madrid, Spain	Coatings and paints, printing inks	701
Laboratoires BIOSEDRA S. A., Malakoff, France ³	Pharmaceuticals	391
Produits et Engrais Chimiques du Rhin S. A., Ottmarsheim, France	Fertilizers	513
Suma S. A., Gien (Loiret), France	Audio and video products	651

¹ Participations of BASF Group companies

² Net sales and earnings before income taxes

³ Including its consolidated majority-owned affiliates

As of December 31, 1981

Holding acquired	Capital stock million DM	Holding ¹ in percent	Capital expenditures million DM	Sales ² million DM 1981 (1980)	Pre-tax earnings ² million DM 1981 (1980)
1965/72	115	100	48.6	1,117.5 (1,075.5)	59.0 (84.7)
1962	25	100	0.3	72.8 (67.9)	Profit transfer agreement
1969	60	100	8.5	409.7 (400.6)	4.9 (19.1)
1968	60	100	41.0	333.8 (312.7)	36.4 (30.0)
1907/53	100 mining shares	100	29.6	690.5 (571.0)	4.8 (5.9)
1968	1,000 mining shares	50	15.2	272.3 (260.7)	Profit transfer agreement
1968	16.8	97.1	8.1	338.3 (321.6)	1.8 (13.8)
1972	250	71.7	163.3	1,502.1 (1,394.8)	139.6 (125.4)
1975	45.9	100	13.9	381.8 (358.2)	30.5 (22.4)
1968	20	100	9.5	134.0 (119.3)	0.1 (2.5)
1953	300	50	66.5	2,049.3 (2,162.7)	Profit transfer agreement
1968	300	100	114.4	5,635.6 (4,995.1)	247.9 (249.0)

Holding acquired	Capital stock million local currency	Holding ¹ in percent	Capital expenditures, million local currency	Sales ² million local currency	Pre-tax earnings ² million local currency
				1981 (1980)	1981 (1980)
1965	12 Dutch Guilders	50	0.1 Dutch Guilders	155.8 (96.8) Dutch Guilders	2.0 (2.7) Dutch Guilders
1964	2,500 Belgian Francs	100	741.0 Belgian Francs	32,302.0 (30,607.7) Belgian Francs	-10.6 (297.9) Belgian Francs
1966	1,500 Pesetas	100	198.5 Pesetas	18,314.3 (16,421.1) Pesetas	-113.0 (588.7) Pesetas
1966	50 French Francs	50	2.7 French Francs	347.5 (318.2) French Francs	-44.3 (3.0) French Francs
1967	420 Austrian Shillings	50	3.5 Austrian Shillings	2,186.8 (1,688.7) Austrian Shillings	-88.2 (-41.6) Austrian Shillings
1969	328 Pesetas	99.1	517.3 Pesetas	4,942.3 (4,296.3) Pesetas	-77.8 (181.2) Pesetas
1970	24.5 French Francs	100	13.7 French Francs	156.8 (128.0) French Francs	-3.3 (0.1) French Francs
1968	131.3 French Francs	50	10.7 French Francs	495.8 (415.6) French Francs	3.9 (3.7) French Francs
1962	45 French Francs	100	55.5 French Francs	139.1 (101.4) French Francs	0.6 (0.5) French Francs

Major Affiliates / Abroad

Company name and headquarters	Products	Number of employees
North America		
Badische Corporation, Williamsburg, Virginia, USA ³	Chemicals, nylon and acrylic fibers	4,061
BASF Canada Inc., Montreal, Canada	Plasticizers and intermediates, Styropor, auxiliaries	591
BASF Systems Corporation, Bedford, Massachusetts, USA	Magnetic audio and video media, computer products	1,236
BASF Wyandotte Corporation, Parsippany, New Jersey, USA ^{3,4}	Chemicals, polyurethane intermediates, Styropor, dyestuffs, auxiliaries, crop protection products, vitamins	4,438
Fritzsche Dodge & Olcott, Inc., New York, New York, USA ³	Fragrances and flavors	870
Latin America		
BASF Argentina S. A., Buenos Aires, Argentina	Styropor, finishing products, crop protection products	354
BASF Brasileira S. A., Indústrias Químicas, São Paulo, Brazil ³	Styropor, foamed Styropor, dyestuffs and finishing products, crop protection products, magnetic tapes	3,138
BASF Mexicana, S. A., México, D. F., Mexico	Polyurethane systems, dyestuffs and finishing products	430
BASF Química Colombiana S. A., Medellin, Colombia	Chemicals, polyester resins, finishing products, crop protection products	462
Glasurit do Brasil Ltda., São Bernardo do Campo, Estado do São Paulo, Brazil ³	Coatings and paints	2,171
Asia and Australia		
BASF Australia Ltd., Melbourne, Australia	Styropor, polyurethane systems, finishing products	252
BASF India Ltd., Bombay, India	Styropor, foamed Styropor, tanning agents, crop protection products, finishing products	596
BASF Japan Ltd., Tokyo, Japan	Finishing products, compact cassettes	330
Yuka Badische Company Ltd., Yokkaichi, Mie Pref., Japan	Styropor, plastic dispersions, polystyrene foam sheets	232

¹ Participations of BASF Group companies

² Net sales and earnings before income taxes

³ Including its consolidated majority-owned affiliates

⁴ Excludes 1980 BASF Systems Division data which is included in BASF Systems Corporation, incorporated on December 31, 1980

Holding acquired	Capital stock million local currency	Holding ¹ in percent	Capital expen- ditures, million local currency	Sales ² million local currency	Pre-tax earnings ² million local currency
				1981 (1980)	1981 (1980)
1958	122.9 U.S. \$	100	93.2 U.S. \$	563.4 (453.2) U.S. \$	25.0 (22.1) U.S. \$
1954	34.7 Can. \$	100	2.2 Can. \$	197.8 (178.9) Can. \$	4.1 (9.8) Can. \$
1964/80	42 U.S. \$	100	9.3 U.S. \$	78.3 (66.4) U.S. \$	-26.3 (-3.0) U.S. \$
1970	182.2 U.S. \$	100	103.4 U.S. \$	1,038.4 (1,010.4) U.S. \$	13.1 (-76.8) U.S. \$
1980	127.5 U.S. \$	100	2.1 U.S. \$	81.3 (-) U.S. \$	-2.9 (-) U.S. \$
1969	66,335 Arg. Pesos	100	3,175.4 Arg. Pesos	186,201.3 (94,518.8) Arg. Pesos	-32,521.8 (-11,178.3) Arg. Pesos
1955	6,305.5 Cruzeiros	100	1,478.3 Cruzeiros	19,693.8 (10,237.2) Cruzeiros	281.1 (878.7) Cruzeiros
1964	283 Mex. Pesos	100	115.7 Mex. Pesos	1,119.6 (859.4) Mex. Pesos	21.5 (42.7) Mex. Pesos
1969	190 Col. Pesos	100	30.2 Col. Pesos	2,350.3 (1,808.6) Col. Pesos	103.8 (-35.7) Col. Pesos
1967	2,647.1 Cruzeiros	100	724.5 Cruzeiros	18,615.9 (9,072.9) Cruzeiros	3,317.6 (1,133.3) Cruzeiros
1963	4 Austr. \$	100	0.4 Austr. \$	55.5 (50.6) Austr. \$	-0.3 (0.1) Austr. \$
1960	15.8 Ind. Rupees	50	24.1 Ind. Rupees	203.0 (177.0) Ind. Rupees	14.0 (12.5) Ind. Rupees
1953	2,820 Yen	100	349.1 Yen	32,980.4 (27,559.8) Yen	-925.8 (520.7) Yen
1962	1,600 Yen	50	766.4 Yen	18,089.4 (18,760.7) Yen	773.2 (1,156.3) Yen

1981 Financial Statements
Balance Sheet of the BASF Group as of December 31, 1981

Assets	Dec. 31, 1981 1,000 DM	Dec. 31, 1980 1,000 DM
I. FIXED ASSETS		
A. PROPERTY, PLANT AND EQUIPMENT	7,977,197	7,723,382
B. PATENTS, TRADEMARKS, FRANCHISES	98,583	102,255
C. INVESTMENTS		
1. Investments in affiliates	380,991	337,922
2. Long-term loans to affiliates	32,036	30,945
3. Other investments and long-term loans	315,198	314,049
	728,225	682,916
	8,804,005	8,508,553
II. CURRENT ASSETS		
A. GOODS ON LEASE	148,170	125,071
B. INVENTORIES	5,104,692	4,305,331
C. UNCOMPLETED CONTRACTS	146,911	172,391
D. NOTES AND ACCOUNTS RECEIVABLE		
1. Notes receivable	196,974	262,382
2. Accounts receivable-trade	4,018,858	3,593,664
3. Other receivables	454,977	381,336
4. Allowance for doubtful receivables	(253,253)	(209,612)
5. Receivables from affiliates	264,486	206,713
	4,682,042	4,234,483
E. CASH AND CASH ITEMS		
1. Marketable securities	150,163	101,036
2. Cash	575,002	569,160
	725,165	670,196
	10,806,980	9,507,472
III. DEFERRED CHARGES AND PREPAID EXPENSES	273,333	266,229
	19,884,318	18,282,254

Capital and Liabilities	Dec. 31, 1981 1,000 DM	Dec. 31, 1980 1,000 DM
I. STOCKHOLDERS' EQUITY		
A. PAID-IN CAPITAL		
1. Capital stock of BASF Aktiengesellschaft	2,032,478	1,997,971
2. Paid-in surplus	1,906,997	1,844,207
	3,939,475	3,842,178
B. EARNED SURPLUS		
1. As of January 1	3,018,439	2,964,593
2. Dividend of BASF Aktiengesellschaft (previous year)	(279,716)	(315,353)
3. Net income	366,779	358,747
4. Other changes	373	10,452
5. As of December 31	3,105,875	3,018,439
EQUITY OF BASF GROUP	7,045,350	6,860,617
II. BALANCE ARISING FROM CONSOLIDATION	16,576	45,245
III. MINORITY INTERESTS	118,473	131,999
IV. SPECIAL RESERVES	736,096	698,508
V. LONG-TERM RESERVES		
1. Pension reserves	2,482,290	2,269,207
2. Other long-term reserves	1,094,759	944,659
	3,577,049	3,213,866
VI. LONG-TERM LIABILITIES		
1. Bonds and promissory notes	863,781	1,056,515
2. Long-term liabilities to banks	564,689	368,724
3. Other long-term liabilities	460,685	417,944
4. Long-term liabilities to affiliates	76,845	84,516
	1,966,000	1,927,699
VII. CURRENT LIABILITIES AND ACCRUALS		
1. Accounts payable-trade	2,145,587	2,040,224
2. Notes payable	558,728	337,951
3. Short-term liabilities to banks	804,229	684,970
4. Advances received	213,901	215,227
5. Accrued taxes and tax liabilities	780,241	672,329
6. Other accrued charges	755,656	660,363
7. Other short-term liabilities	1,039,676	696,927
8. Short-term liabilities to affiliates	90,113	70,566
	6,388,131	5,378,557
VIII. DEFERRED INCOME	36,643	25,763
	19,884,318	18,282,254

Statement of Income of the BASF Group for the Year Ended December 31, 1981

	1981 1,000 DM	1980 1,000 DM
NET SALES		
To third parties	30,864,953	26,985,299
To non-consolidated affiliates	900,871	745,311
TOTAL	31,765,824	27,730,610
Cost of sales	25,862,333	22,304,998
GROSS PROFIT	5,903,491	5,425,612
Administrative, selling and other costs	4,095,948	3,594,421
INCOME FROM OPERATIONS	1,807,543	1,831,191
OTHER EXPENSES AND INCOME		
Expenses for non-consolidated affiliates	68,158	14,818
Other income from investments	54,837	63,609
Interest income	178,974	151,061
Interest expense	564,480	402,968
Write-downs of investments	19,759	6,193
Gains on currency transactions (net)	7,306	(90,260)
Other expense (net)	105,959	260,904
TOTAL	(517,239)	(560,473)
INCOME BEFORE INCOME TAXES AND MINORITY INTERESTS	1,290,304	1,270,718
Income taxes	909,001	891,411
INCOME AFTER TAXES	381,303	379,307
Minority interests in income	14,524	20,560
NET INCOME	366,779	358,747

We have examined the balance sheets of the BASF Group as of December 31, 1981 and 1980 and the related statements of income for the years then ended. Our examinations were made in accordance with auditing standards generally accepted in Germany and in the United States of America and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances. We did not examine the financial statements of certain BASF subsidiaries and affiliates, which statements reflect assets constituting 23% and 24%, respectively, of Group assets as of December 31, 1981 and 1980 and revenues constituting 33% and 36%, respectively, of Group revenues for the years ended December 31, 1981 and 1980. These financial statements were examined by other auditors whose reports thereon have been furnished to us, and our opinion expressed herein, in so far as it relates to the amounts included for such companies, is based solely upon the reports of the other auditors.

As discussed in the notes to the Financial Statements of the BASF Group, the financial statements of German companies are prepared and

included in the Group Financial Statements in accordance with the accounting and valuation principles legally prescribed in Germany. The financial statements of the foreign companies are included in accordance with generally accepted accounting principles commonly followed by companies in the United States of America except that interest as a part of the cost of qualifying property, plant and equipment was not capitalized as required under such principles; the capitalization of such interest would increase the BASF Group property, plant and equipment by DM 105.8 million in 1981 and DM 45.5 million in 1980; increase stockholders' equity by DM 75.4 million in 1981 and DM 32.6 million in 1980; and increase net income by DM 42.8 million in 1981 and DM 32.6 million in 1980, net of tax effects.

**Schitag
Schwäbische Treuhand-
Aktiengesellschaft**
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft

Dr. Frey
Wirtschaftsprüfer

Reference is also made to the notes to the Group Financial Statements for descriptions of and the effects of the major differences between German accounting principles and those generally accepted in the United States.

In our opinion, based upon our examinations and the reports of other auditors, except for the aforementioned effects of the foreign companies not capitalizing interest, the above mentioned Financial Statements of the BASF Group present fairly its financial position at December 31, 1981 and 1980 and the results of its operations for the years then ended in conformity with the accounting principles referred to in the preceding paragraph, applied on a consistent basis.

Stuttgart/Washington, D. C.
April 6, 1982

Deloitte Haskins & Sells
Certified Public Accountants

J. M. Crawford T. F. Blue
Partner Partner

Companies included in the Financial Statements

The consolidated Financial Statements of the BASF Group include the Financial Statements of BASF Aktiengesellschaft, its significant subsidiaries and, on a proportional consolidation basis, the significant fifty-percent-owned affiliates. The Group consolidation thus includes BASF Aktiengesellschaft, 102 subsidiaries and 8 fifty-percent-owned affiliates. Subsidiaries and 50-percent-owned affiliates not consolidated as well as the significant less than 50-percent-owned affiliates are included using the equity method of accounting.

BASF Química da Bahia S. A., Camaçari-Bahia, which started operations during the year, was newly included in the consolidation. Other changes in the number of consolidated companies were due to reorganizations and mergers of companies. These changes had no material effect upon the Group Financial Statements.

Principles of accounting and valuation

The financial statements of German companies are prepared and included in the Group Financial Statements in accordance with the accounting and valuation principles legally prescribed in Germany.

The financial statements of the foreign companies are included in accordance with the generally accepted accounting principles commonly followed by companies subject to the requirements of the Securities and Exchange Commission (SEC) in the United States. However, not included is interest cost in the acquisition or production cost of qualifying assets, as prescribed in accordance with these principles, starting with the fiscal year 1980.

Had the Financial Statements of the German companies also been included on the basis of U.S. accounting principles, and had the capitalization of interest cost been applied by all BASF Group companies, the stockholders' equity and net income would have changed as follows:

Increase of stockholders' equity as of December 31, 1981 and 1980 by DM 1,493.5 million and DM 1,425.8 million, respectively; increase of income after taxes for 1981 and 1980 by DM 67.7 million and DM 49.0 million, respectively.

These differences result primarily from the valuation of investments acquired by issuing shares, when the issued shares are accounted for at nominal value as permitted by German law, the application of special tax regulations to the valuation of property, plant and equipment and investments, appropriations to and from special reserves, the non-application of the capitalization of interest cost as prescribed by U.S. accounting principles, and the immediate charge to income in 1974 as a result of the change to the discounted value method for the determination of pension reserves rather than amortization of the charge over an extended period.

Also, U.S. principles would require additional disclosures and explanations: The presentation of sales, income and assets in different business segments and foreign operations, additional income tax disclosures, certain disclosures of leased assets and lease commitments, certain disclosures of the effects of changes in purchasing power, certain disclosures of proved and developed crude oil and natural gas reserves and the separate reporting of extraordinary items. These additional disclosures would have no effect upon stockholders' equity or net income.

Principles of currency conversion

Foreign currency financial statements are translated into DM for the purpose of inclusion in the Group Financial Statements as follows:

- a) Revenue and expenses – at quarterly average rates, except for depreciation, depletion, the disposal of fixed assets and inventories consumed in cost of sales which have been translated at historical rates.
- b) Property, plant and equipment, intangible assets, deferred charges, investments in affiliates and inven-

tories – at rates in effect at the date of acquisition or production (historical rates).

c) All other assets and liabilities – at rates existing at the close of the year. Changes in value due to currency fluctuations are charged or credited to income.

Property and depreciation

Property, plant and equipment is generally stated at cost less accumulated depreciation. In case of permanent diminution of value, special depreciation is made. Additions, betterments and renewals are capitalized. Maintenance and repair costs are charged to income. In general, depreciation is computed under the declining balance method where permitted, otherwise under the straight-line method. The annual rates are based on estimated useful lives for the various types of property. Special accelerated depreciation of fixed assets as permitted under special tax regulations is taken by the German companies to the fullest extent allowable within available time limits. Fixed asset acquisitions of low value are charged against income in the year of acquisition. Gains or losses realized when assets are sold or otherwise disposed of are taken into income, unless special German tax regulations permit a deferral of such gains, in which case the amount is credited to certain new additions or temporarily deferred as special reserves in the balance sheet. Costs to drill and equip producing oil and gas wells are capitalized and amortized within 1 to 8 years.

Geophysical expenditures, including exploratory and dry hole costs, are charged against income. Concession acquisition costs are capitalized and amortized over the expected term.

Property, plant and equipment is summarized as follows:

	December 31,	
million DM	1981	1980
Land	590.1	568.3
Buildings	5,319.8	5,003.9
Machinery and equipment	19,252.2	18,094.3
Construction in progress, including advances	1,134.3	1,014.6
	26,296.4	24,681.1
Accumulated depreciation	18,319.2	16,957.7
Property, plant and equipment, net	7,977.2	7,723.4

Provision for depreciation for the years 1981 and 1980 amounted to DM 1,733.0 million and DM 1,592.2 million, respectively.

Inventories

Inventories are stated at acquisition or production cost or at the lower market value. The lower market value represents replacement cost in case of raw materials and supplies and in case of semi-finished and finished products the expected sales proceeds less costs to be incurred prior to sale. Cost includes direct costs and an appropriate portion of the production overhead including depreciation charges. Generally, cost is determined under the average cost method. However, certain inventories have been determined by the Lifo-method (last in – first out) aggregating DM 874.1 million in 1981 and DM 700.8 million in 1980. The aggregate value determined at average cost or at the lower market value would amount to DM 1,271.8 million and DM 954.5 million in 1981 and 1980, respectively.

Cash and cash items

Marketable securities are carried at cost or market value, whichever is lower.

Cash is summarized as follows:

	December 31,	
million DM	1981	1980
Time deposits	297.9	337.8
Cash on hand and demand deposits	277.1	231.4
	575.0	569.2

Paid-in capital

Paid-in capital includes the total of capital stock of BASF Aktiengesellschaft, the premiums paid for capital stock and the reserves contributed from the decartelization of IG Farben-industrie Aktiengesellschaft. Changes in these items resulting from the issuance of shares during 1981 and information concerning conditionally authorized capital are shown in the notes to the Financial Statements of BASF Aktiengesellschaft.

Earned surplus

The earned surplus consists of the free reserves appropriated from profits and the profit available for dividend of BASF Aktiengesellschaft and the undistributed earnings or losses since dates of acquisition of the consolidated subsidiaries and affiliates and the proportional earnings of the investments carried under the equity method of accounting.

Balance arising from consolidation

Balances arising from consolidation result from differences between the recorded costs of acquisition of investments in consolidated companies and the underlying net assets at the time of acquisition.

Debit balances represent acquired goodwill together with any excess of the fair value over the book value of net assets at the acquisition date which has not been allocated to other Group balance sheet items. Debit balances are amortized on a regular basis.

Credit balances arise from acquisitions made by issuing shares for investments when such shares were accounted for at nominal value as permitted by German law, and from permitted valuation adjustments of investments under German tax regulations.

In 1980, an amount equivalent to the gain from sale of an investment has been taken as a special write-off against the investment in Fritzsché Dodge & Olcott Inc. and is included in other expense (net).

Individual debit and credit balances are netted and result in a net credit excess.

Special reserves and long-term reserves

Special reserves relate primarily to reserves for price increases of inventories and similar reserves or deferrals of gains as permitted under German tax regulations. Other long-term reserves consist mainly of amounts provided for risks and probable losses in connection with oil, gas and mining operations.

Long-term liabilities

Bonds and promissory notes, due after one year, are summarized as follows:

		million DM
	December 31,	1981
	1980	
BASF Aktiengesellschaft:		
8½% Bonds of 1974 with detachable stock warrants, due 1983–1986	328.5	328.5
6¾% promissory notes, maturing serially between 1975–1982	—	5.0
Subsidiaries and 50-percent-owned affiliates:		
6½% Swiss Franc Bonds of BASF Finance Europe N. V. of 1976, due 1991	124.3	110.4
7½% U.S. Dollar Notes ¹ (private placement) of BASF Overzee N. V. of 1978, due 1982	—	98.0
Redeemable preferred shares with cumulative preferred dividends of BASF Canada Inc. of 1978, repayable through 1985	42.8	45.4
9¼% U.S. Dollar Bonds of BASF Finance Europe of 1979, due 1983	67.5	58.8
7½% French Franc Bonds of BASF Transatlantica S. A. of 1972, due 1974–1987	22.4	24.5
8¼% Swiss Franc Bonds of BASF Overzee N. V. of 1975, due 1985	25.0	22.2
Various promissory notes, insurance loans, bonds and mortgages at 5¼–10¼% interest, maturing serially between 1965–2002	253.3	363.7
	863.8	1,056.5

8 1/2 % Bonds with detachable stock warrants of 1974/1986:

Each 8 1/2 % bond with a nominal value of DM 300 (smallest denomination) has 2 detachable stock warrants granting the right to purchase for each of these 1.05 shares of capital stock of BASF Aktiengesellschaft at a price of DM 117.60 per share or a total of up to 2,799,955 shares at a nominal value of DM 50 at December 31, 1981. The right expires on May 31, 1986.

Fixed assets of DM 263.2 million and DM 259.1 million in 1981 and 1980, respectively, were pledged as collateral to long-term liabilities.

The interest rates of long-term bank loans, excluding South American borrowings, are principally between 6 and 17.5 percent.

Other long-term liabilities consist principally of amounts due to employee benefit organizations.

The short-term portions of all long-term liabilities amounting to DM 391.7 million and DM 131.6 million at December 31, 1981 and 1980, respectively, are classified with the appropriate current liabilities.

The maturities of all long-term liabilities from 1983 through 1986 are as follows:

	million DM
1983	479.3
1984	160.1
1985	186.6
1986	202.8

In February 1982, BASF Overzee N. V. floated 165.0 million U.S. Dollar bonds, bearing interest at 11% and due in 1988. Each bond with a nominal value of 1,000 U.S. Dollar has bearer-stock warrants granting the right to purchase 20 shares of capital stock of BASF Aktiengesellschaft of a nominal value of DM 50 at a price of DM 133.00 per share. In total, up to 3,300,000 shares may be issuable. The right expires on February 29, 1988.

Short-term liabilities to banks

This caption includes short-term bank borrowings plus current maturities of long-term liabilities to banks amounting to DM 69.1 million and DM 83.9 million in 1981 and 1980, respectively. In addition, the unused lines of credit aggregated DM 406.7 million and DM 364.8 million at December 31, 1981 and 1980, respectively. The maximum amount of short-term bank borrowings in 1981 was DM 1,619.4 million. The weighted average effective interest rate for such borrowings as of December 31, 1981 was 14.3 percent excluding South American borrowings and 20.2 percent including such borrowings.

Research and development

Research and development costs are charged to operations as incurred. Such expenses amounted to DM 1,094.3 million in 1981 and DM 992.8 million in 1980.

Pension plans

In accordance with legal requirements, employees in various countries are covered by compulsory insurance laws. Employees of certain companies are also entitled to pensions provided by company agreements. These latter pension benefits have been adequately provided for in accordance with actuarial computations or by company-sponsored old age employee benefit organizations. In the case of certain foreign companies the amounts are funded through pension funds or insurance contracts. The total cost of compulsory insurances and the various pension plans amounted to DM 956.4 million in 1981 and DM 865.0 million in 1980.

Other expense (net)

Other expense (net) in the Statements of Income of the BASF Group includes, at the respective DM amounts, charges in connection with the shut-

down of various production facilities at BASF Systems Corporation during 1981, in the amount of 13.3 million U.S. Dollars, and at BASF Wyandotte Corporation during 1980, in the amount of 74.5 million U.S. Dollars.

Income taxes

Income taxes include corporation tax, trade income tax or similar income-related taxes and are provided on the basis of taxable income, taking into account any loss carryforwards of individual companies as prescribed by local tax statutes. Taxes on oil producing operations, payable in certain countries at rates of up to 84 percent of taxable income in those countries, are included in income tax expense; such taxes amounted to DM 466.2 million in 1981 and DM 388.0 million in 1980. Property tax, trade capital tax, real estate tax or similar non-income related taxes are not included as income taxes but as operating costs.

Source and application of funds

Source and application of funds of the BASF Group is shown under "Finance" on page 4.

Contingent liabilities and commitments

There are various pending legal actions arising in normal business operations for which adequate provisions have been made. Also, in the ordinary course of business, the companies have incurred contractual commitments pursuant to terms of leases and other contracts or pension plans, and are contingently liable as guarantor or endorser of notes. Adequate provision has been made for any losses and uncertain liabilities which may be reasonably foreseen.

To what extent the proper application of our products for fertilizing, crop protection and animal feeding improves agricultural productivity and profitability is demonstrated at our "Rehhütte" farm near Ludwigshafen.



1981 Financial Statements
BASF Aktiengesellschaft and Consolidated German Subsidiaries
Consolidated Balance Sheet as of December 31, 1981

	Dec. 31, 1981	Dec. 31, 1980
	DM	1,000 DM
Assets		
I. FIXED ASSETS		
A. TANGIBLE AND INTANGIBLE ASSETS		
1. Real estate and equivalent rights with commercial or industrial buildings	1,178,905,304	1,147,910
2. Real estate and equivalent rights with residential buildings	177,300,549	186,126
3. Real estate and equivalent rights without buildings	139,842,495	131,239
4. Buildings on land owned by others not included under 1. or 2. above	47,080,239	39,408
5. Machinery, plant and equipment	2,321,117,309	2,387,639
6. Fixtures and fittings	402,583,608	372,645
7. Payments on account, and tangible assets in course of construction	626,486,805	566,558
8. Concessions, trademarks, similar rights and licenses	181	1,930
	4,893,316,490	4,833,455
B. INVESTMENTS		
1. Participating interests	2,073,614,024	1,967,783
2. Securities	408,070	416
3. Loans for a term of at least four years (DM 84,149,998 secured by mortgages)	180,792,899	148,306
	2,254,814,993	2,116,505
C. BALANCE ARISING FROM CONSOLIDATION	429,535,709	374,503
	7,577,667,192	7,324,463
II. CURRENT ASSETS		
A. GOODS ON LEASE	62,311,029	53,365
B. INVENTORIES	3,469,380,717	2,853,611
C. UNCOMPLETED CONTRACTS	168,197,450	190,401
D. OTHER CURRENT ASSETS		
1. Payments on account	10,363,958	12,906
2. Accounts receivable-trade (DM 8,015,878 with a residual term of more than one year)	2,413,266,808	2,191,819
3. Notes receivable (DM 12,099,491 rediscountable at the Federal Bank)	50,680,299	125,440
4. Checks	1,730	—
5. Cash on hand, balances at the Federal Bank and in postal checking accounts	4,187,480	4,074
6. Cash in banks	436,740,548	369,960
7. Securities	73,810,220	83,636
Subtotal items 4–7: cash and cash items	514,739,978	457,670
8. Accounts receivable from affiliated companies	585,878,196	598,108
9. Receivables resulting from loans granted under or according to § 89 AktG (corporation law)	5,895,919	4,751
10. Other current assets	311,848,972	283,221
	7,592,563,326	6,771,292
III. PREPAID EXPENSES		
1. Discounts	—	151
2. Others	11,895,709	11,359
	11,895,709	11,510
	15,182,126,227	14,107,265

Capital and Liabilities	Dec. 31, 1981 DM	Dec. 31, 1980 1,000 DM
I. CAPITAL STOCK Par value of conditionally authorized but unissued shares DM 340,031,200	2,032,477,750	1,997,971
II. RESERVES INCLUDING CONSOLIDATED PROFIT *		
1. Capital surplus	1,843,467,399	1,780,677
2. Earned surplus including consolidated profit	2,208,871,153	2,134,130
	4,052,338,552	3,914,807
EQUITY OF BASF AKTIENGESELLSCHAFT AND ITS CONSOLIDATED GERMAN SUBSIDIARIES		
* of which: legal reserve of BASF Aktiengesellschaft	DM 1,648,349,074	
free reserve of BASF Aktiengesellschaft	DM 1,241,000,000	
consolidated profit	DM 494,615,332	
	6,084,816,302	5,912,778
III. MINORITY INTERESTS		
1. Interests in capital and reserves	96,221,732	114,465
2. Interests in profit	12,079,137	13,534
	108,300,869	127,999
IV. SPECIAL RESERVES		
(according to § 6b EStG, § 7c EStG (income tax law), section 35 EStR (income tax regulations), § 74 EStDV (income tax directive), § 1 EntwStG (developing countries tax law), § 3 AuslInvG (German foreign investment law))		
V. GENERAL VALUE ADJUSTMENTS FOR ACCOUNTS RECEIVABLE	77,949,244	73,330
VI. PROVISIONS FOR LIABILITIES AND CHARGES		
1. Pension provisions	2,418,845,940	2,212,254
2. Deferred maintenance provisions	30,597,000	26,895
3. Other provisions	1,863,553,881	1,621,547
	4,312,996,821	3,860,696
VII. LIABILITIES WITH A TERM OF AT LEAST FOUR YEARS		
1. Bonds (DM 1,217,400 secured by mortgages)	329,727,700	331,713
2. Debentures (DM 19,600,000 secured by mortgages)	24,600,000	41,300
3. Liabilities to credit institutions (DM 52,925,902 secured by mortgages)	83,018,540	96,375
4. Loans from BASF Employees' Pension Fund (DM 28,119,363 secured by mortgages)	384,736,618	354,299
5. Other liabilities (DM 9,063,910 secured by mortgages)	9,160,410	8,917
Of the amounts included in items 1–5 DM 316,820,247 are due within less than four years	831,243,268	832,604
VIII. OTHER LIABILITIES		
1. Accounts payable-trade	1,421,364,998	1,176,913
2. Notes payable	727,500	10,529
3. Liabilities to credit institutions	4,485,668	8,846
4. Advances received on account of orders	210,123,014	230,573
5. Payables to affiliated companies	622,670,898	551,423
6. Sundry liabilities	765,324,170	644,829
	3,024,696,248	2,623,113
IX. DEFERRED INCOME	716,490	536
	15,182,126,227	14,107,265
1. Contingent liabilities from the issue and endorsement of notes	751,313,842	381,357
2. Contingent liabilities from guarantees	980,274,763	840,470
3. Contingent liabilities from warranties	77,620,159	70,850

**BASF Aktiengesellschaft and Consolidated German Subsidiaries
Statement of Consolidated Income
for the Year Ended December 31, 1981**

	1981 DM	1980 DM	1,000 DM	1,000 DM
1. Sales	24,396,401,085		21,736,996	
2. Expenses not shown separately below including variances in inventories and work performed for own purposes and capitalized	16,960,238,406	7,436,162,679	14,523,098	7,213,898
3. Income from profit transfer agreements	61,231,259		29,412	
4. Income from participating interests	240,187,860		120,560	
5. Income from other investments	4,527,452		3,620	
6. Other interest and similar income	91,016,889		97,133	
7. Income from write-ups to fixed assets	8,484,295		5,517	
8. Income from reversal of provisions for liabilities and charges	71,545,331		70,044	
9. Other income	423,880,533	900,873,619	496,198	822,484
		8,337,036,298		8,036,382
10. Wages and salaries	4,007,438,197		3,781,126	
11. Compulsory social security contributions	596,218,045		556,367	
12. Expenses for pensions and assistance	405,048,957		402,417	
13. Depreciation and write-downs of tangible and intangible fixed assets	1,242,787,363		1,140,032	
14. Write-downs of investments	72,420,776		106,897	
15. Interest and similar expenses	189,957,753		130,950	
16. Taxes				
a) on income and property	600,985,670		619,613	
b) others	800,801,781		820,251	
	1,401,787,451		1,439,864	
17. Losses from profit transfer agreements	49,898,944	7,965,557,486	355	7,558,008
18. Net income for the year	371,478,812		478,374	
19. Profit brought forward	227,560,224		131,972	
	599,039,036		610,346	
20. Appropriation to reserves	92,344,567		87,833	
	506,694,469		522,513	
21. Minority interests in income	12,079,137		13,534	
22. Consolidated profit	494,615,332		508,979	

The consolidated financial statements
and the consolidated annual report are in
agreement with the legal requirements
according to our obligatory examination.

Stuttgart, April 6, 1982

Schitag
Schwäbische Treuhand-Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft
(Certified Public Accountants – Tax Consultants)

Dr. Frey Wirtschaftsprüfer (Certified Public Accountant)	ppa. Heydkamp Wirtschaftsprüfer (Certified Public Accountant)
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Notes to the 1981 Financial Statements of BASF Aktiengesellschaft and Consolidated German Subsidiaries

The subsidiaries of BASF Aktiengesellschaft located in Germany are listed on page 42 as well as on pages 59 and 60.

Insofar as the financial position of subsidiaries included in the consolidated financial statements has not been cited specifically in this annual report, the development of their business and their financial position are not material in relation to the consolidated financial position and operations.

Changes in the scope of consolidation

Wintershall Rohölversorgungs-Gesellschaft mbH, Kassel, the former Mineralöl-Lager- und Transport-Gesellschaft mbH, Kassel, has been newly included in the consolidation, since the scope of this company's operations has expanded.

Canapol Chemie-Beteiligungs-Gesellschaft mbH, Ludwigshafen, has been merged into BASF Aktiengesellschaft and therefore is no longer consolidated. However, this has no effect on the scope and content of the consolidated financial statements.

<i>Subsidiaries not included in the consolidation because of their minor significance according to § 329 (2), sentence 2, AktG (corporation law):</i>	<i>Nominal Capital 1,000 DM</i>	<i>Percent Ownership</i>
Subsidiaries of		
BASF Aktiengesellschaft, Ludwigshafen:		
– BADICHEM Chemiegeschäfte GmbH, Ludwigshafen*	100	100 ²
– BASF Handels- und Export-Gesellschaft mbH, Ludwigshafen*	3,000	100 ¹
– BASF Terratec GmbH, Ludwigshafen*	20	100 ¹
– Gewerkschaft des konsolidierten Steinkohlenbergwerks Breitenbach, Ludwigshafen	mining shares	100
– Dr. Wolman GmbH, Sinzheim		100 ¹
	660	100 ²
Subsidiaries of		
BASF Farben + Fasern AG, Hamburg:		
– Glasurit GmbH, Hamburg*	100	100 ³
– Herbol GmbH, Cologne*	100	100 ³
Subsidiary of		
BASF Handels- und Export-Gesellschaft mbH, Ludwigshafen:		
– Tensid-Chemie Vertriebsgesellschaft mbH, Dueren	200	100 ²
Subsidiaries of		
Gewerkschaft Auguste Victoria, Marl:		
– Gewerkschaft Röchling, Marl*	mining shares	1,000
– Kohlen-Handelsgesellschaft Auguste Victoria OHG, Marl		100 ^{1**}
Subsidiary of		
Guano-Werke AG, Hamburg:		
– ORACEFA Grundstücksverwaltungsgesellschaft mbH, Hamburg	1,800	75 ²
Subsidiaries of		
Kali und Salz AG, Kassel:		
– Deutscher Straßen-Dienst H. Dauppert GmbH, Kassel*	100	100 ²
– Gewerkschaft Beienrode, Koenigslutter	mining shares	5,000
– Gewerkschaft Salz-Jerxheim, Hanover	mining shares	100
– Kali-Transport Gesellschaft mbH, Hamburg*		74 ¹
– Kali-Union Verwaltungsgesellschaft mbH, Kassel *		4,000
– Montangesellschaft mbH, Cologne*		1,500
– SAWIKO Salzvertriebsgesellschaft mbH, Kassel*		1,155
– Wohnbau Salzdetfurth GmbH, Bad Salzdetfurth*		100
		100 ²
	3,500	
Subsidiaries of		
Nordmark-Werke GmbH, Hamburg:		
– IFAH GmbH, Hamburg*	20	100 ¹
– Stormann-Verlag GmbH, Uetersen*	5	100 ²
– Täberg Grundstücks-Gesellschaft mbH, Hamburg*	1,330	100 ²
– Vitamultina Pharmazeutische Präparate GmbH, Hamburg*	20	100 ¹
Subsidiary of		
Oranienburger Chemikalien AG, Frankfurt/Main:		
– Land- und Forstflug Aviochemie GmbH i. L., Muenster	50	100 ¹

* profit transfer agreement with parent company

** including the holdings of other BASF Group companies

¹ inactive companies

² companies with insignificant operations, having no effect on the consolidated financial position

³ managing companies

Notes to the 1981 Financial Statements of BASF Aktiengesellschaft and Consolidated German Subsidiaries

Subsidiaries not included in the consolidation because of their minor significance according to § 329 (2), sentence 2, AktG (corporation law):	Nominal Capital 1,000 DM	Percent Ownership
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Subsidiaries of

Wintershall AG, Celle/Kassel:

– Erdöl-Raffinerie Franken GmbH, Eggolsheim*	8,500	100 ¹
– Gewerkschaft Uchte, Uchte*	mining shares 100	100 ¹
– Gewerkschaft Ummendorf, Kassel	mining shares 100	100 ^{1**}
– Untertage-Speicher-Gesellschaft mbH, Nordenham	20,000	100 ^{1**}

Subsidiary of

Fritzsche Dodge & Olcott, Inc., New York:

– Fritzsche Dodge & Olcott GmbH, Hamburg	1,100	100 ¹
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Subsidiaries not included in the consolidation because their inclusion would impair the fair presentation due to their social commitment, in accordance with § 329 (2), sentence 3, AktG (corporation law):

(In accordance with the by-laws of these companies a distribution of net assets to the owners is not permitted in case of liquidation)

Subsidiaries of

BASF Aktiengesellschaft, Ludwigshafen:

– BASF-Altershilfe GmbH, Ludwigshafen and its subsidiary	65	100 ^{**}
– Dr. Heinrich von Brunck Gedächtnis-Stiftung für Werksangehörige der BASF GmbH, Ludwigshafen	50	95
– GEWOGE Gemeinnütziges Wohnungsunternehmen GmbH, Ludwigshafen	30,000	97

Subsidiary of

Nordmark-Werke GmbH, Hamburg:

– Unterstützungs kasse "Nordmark-Werke" GmbH, Uetersen	20	100
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Additional information

The results of major foreign subsidiaries, not included in the Financial Statements of BASF Aktiengesellschaft and Consolidated German Subsidiaries, are shown under Major Affiliates/Abroad, pages 44 to 47. Of the subsidiaries not named there, a significant loss was incurred by BASF Venezolana S.A., Caracas. It amounted to about 24.4 million Bolivares.

* profit transfer agreement with parent company

** including the holdings of other BASF Group companies

¹ companies with insignificant operations, having no effect on the consolidated financial position

Consolidated balance sheet

The consolidated data represent largely the activities of BASF Aktiengesellschaft; for this reason we refer to the Notes to the Financial Statements of BASF Aktiengesellschaft. Thus the following describes only significant items relating to consolidated subsidiaries and to consolidation adjustments.

Inter-company profits as well as sales, expenses and income between the consolidated companies were eliminated. That applies also to receivables from and liabilities to companies included in the consolidation.

The *balance arising from consolidation* was determined according to the method of consolidation at acquisition date. It represents the difference between the costs of acquisition of subsidiaries and the BASF share in its equity at the time of acquisition.

Debit and credit balances are netted.

The debit balances represent acquired goodwill together with any difference arising between the fair value and the book value of the assets of the consolidated subsidiaries at the acquisition date. If write-downs to the carrying values of consolidated subsidiaries due to permanent impairments were taken after the acquisition date and were charged to the consolidated net income, then the debit balances have been reduced accordingly.

Credit balances arose primarily from acquisitions made by the issue of shares for investments, provided such shares were accounted for at nominal value as permitted by German corporation law.

The *capital surplus* comprises the premiums paid per share of capital stock and allocated to the legal reserve and the reserves contributed from the decartelization of IG Farbenindustrie Aktiengesellschaft. The *earned surplus* includes the reserves of BASF Aktiengesellschaft appropriated from profits and the undistributed earnings after the date of acquisition of the consolidated subsidiaries and the consolidated profit.

Commitments not shown in the balance sheet, including collateral given for liabilities of consolidated companies, relate principally to BASF Aktiengesellschaft (see Notes to the respective Statements).

As a guarantee for liabilities of BASF Aktiengesellschaft to BASF Employees' Health Insurance, LUWOGE Wohnungsunternehmen GmbH has registered a land charge. The amount guaranteed totaled DM 7,800,000 on December 31, 1981. LUWOGE shows a mortgage liability in the amount of about DM 6 million to BASF Altershilfe GmbH. This liability is included in item VIII. 5. "Payables to affiliated companies".

Gewerkschaft Auguste Victoria is committed for liabilities of various cooperative ventures of the mining industry.

Wintershall AG, having given crude throughput guarantees to Société du Pipeline Sud-Européen and to Deutsche Transalpine Ölleitung GmbH, is liable for unpaid subscriptions of partners according to § 24 GmbH-Gesetz (law for limited liability companies), and has a joint liability for consortium obligations to render future exploration performances in Algeria.

Statement of consolidated income

Other taxes relate primarily to taxes on petroleum products paid by the Wintershall group.

Net income for the year consists of the net income or loss of the companies included in the consolidation, less consolidation adjustments.

The *profit brought forward* represents the total of profits and losses carried forward by the individual companies after the date of acquisition and consolidation adjustments. The elimination of increased dividend remittances from previous year's profits within the consolidated companies accounts for the increase of this item.

Appropriations to reserves are summarized on the basis of the statements of the individual companies: BASF Aktiengesellschaft, the Wintershall group, BASF Farben + Fasern AG, Knoll AG and COMPO GmbH.

Minority interests in income comprise mainly minority interests in the profit retained of COMPO GmbH, Kali und Salz AG and Knoll AG.

1981 Financial Statements

Balance Sheet of BASF Aktiengesellschaft as of December 31, 1981

Assets	Jan. 1, 1981	Additions Write-ups*	Transfers	Deductions (Retirements)	Depreciation (Write-downs)	Dec. 31, 1981	Dec. 31, 1980
	DM	DM	DM	DM	DM	DM	1,000 DM
I. FIXED ASSETS							
A. TANGIBLE AND INTANGIBLE ASSETS							
1. Real estate and equivalent rights with commercial or industrial buildings	746,491,650	54,061,720	+ 46,443,371	739,150	86,080,769	760,176,822	746,492
2. Real estate and equivalent rights with residential buildings	2,368,414	535,279	(606,577)	—	243,019	2,054,097	2,368
3. Real estate and equivalent rights without buildings	103,888,706	7,210,241	(6,864,132)	1,359,868	927,512	101,947,435	103,889
4. Buildings on land owned by others not included under 1. or 2. above	990,583	24,644	+ 63,232	—	298,958	779,501	990
5. Machinery, plant and equipment	1,753,741,097	320,493,534	+ 254,630,367	10,603,957	592,299,240	1,725,961,801	1,753,741
6. Fixtures and fittings	222,069,696	94,723,438	+ 46,506,797	1,978,240	117,754,821	243,566,870	222,070
7. Payments on account and tangible assets in course of construction	425,172,691	381,774,635	(340,173,058)	—	2,036,238	464,738,030	425,173
8. Concessions, trademarks, similar rights and licenses	1	—	—	—	—	1	(1, —)
	3,254,722,838	858,823,491	—	14,681,215	799,640,557	3,299,224,557	3,254,723
B. INVESTMENTS							
1. Participating interests	2,808,821,808	242,563,940	—	1,225,262	43,103,414	3,007,057,072	2,808,822
2. Loans for a term of at least four years (DM 44,935,636 secured by mortgages)	95,458,692	46,422,568	—	14,436,449	12,844,401	118,593,371	95,458
	2,904,280,500	288,986,508	—	15,661,711	55,947,815	3,125,650,443	2,904,280
	6,159,003,338	1,147,809,999	—	30,342,926	855,588,372	6,424,875,000	6,159,003
II. CURRENT ASSETS							
A. GOODS ON LEASE						62,311,029	53,365
B. INVENTORIES						460,020,116	411,266
1. Raw materials and supplies						1,357,759,632	1,190,726
2. Finished products, merchandise						1,817,779,748	1,601,992
						138,776,902	148,538
C. UNCOMPLETED CONTRACTS						40,258,593	113,546
D. OTHER CURRENT ASSETS						2,946,540	3,646
1. Payments on account						1,323,936,904	1,144,866
2. Accounts receivable-trade (DM 6,749,982 with a residual term of more than one year)						447,015	473
3. Notes receivable (DM 10,066,916 rediscountable at the Federal Bank)						350,571,979	280,717
4. Cash on hand						59,655,815	58,655
5. Cash in banks						410,674,809	339,845
6. Securities						515,808,651	578,016
Subtotal items 4–6: cash and cash items						4,003,756	3,017
7. Accounts receivable from affiliated companies						141,416,591	142,203
8. Receivables resulting from loans granted under § 89 AktG (corporation law)						4,457,913,523	4,129,034
9. Other current assets						5,348,687	5,448
						10,888,137,210	10,293,485

Capital and Liabilities	Dec. 31, 1981	Dec. 31, 1980
	DM	1,000 DM
I. CAPITAL STOCK Par value of conditionally authorized but unissued shares DM 340,031,200	2,032,477,750	1,997,971
II. RESERVES		
1. Legal reserve (as of Jan. 1, 1981/Jan. 1, 1980)	1,585,559,074	1,545,383
Appropriation of share premiums	62,790,000	40,176
2. Free reserve (as of Jan. 1, 1981/Jan. 1, 1980)	1,648,349,074	1,585,559
Appropriation from net income for the year	1,201,000,000	1,151,000
	40,000,000	50,000
	1,241,000,000	1,201,000
	2,889,349,074	2,786,559
III. SPECIAL RESERVES (according to § 7c EStG (income tax law), § 74 EStDV (income tax directive), section 35 EStR (income tax regulations), § 1 EntwStG (developing countries tax law) and § 3 AuslInvG (German foreign investment law))	276,565,005	219,037
IV. GENERAL VALUE ADJUSTMENTS FOR ACCOUNTS RECEIVABLE	53,557,000	51,172
V. PROVISIONS FOR LIABILITIES AND CHARGES		
1. Pension provisions	1,632,609,523	1,486,269
2. Deferred maintenance provisions	14,000,000	14,000
3. Other provisions	659,635,337	605,298
	2,306,244,860	2,105,567
VI. LIABILITIES WITH A TERM OF AT LEAST FOUR YEARS		
1. Bonds	714,100	1,744
a) 5% Bonds of 1959/84	328,510,300	328,510
b) 8½% Bonds with warrants attached of 1974/86	329,224,400	330,254
	5,000,000	17,500
2. Debentures	10,246,706	11,023
3. Liabilities to credit institutions	356,617,315	325,662
4. Loans from BASF Employees' Pension Fund	8,500	17
5. Other liabilities		
Of the amounts included in items 1–5	701,096,921	684,456
DM 261,446,338 are due within less than four years		
VII. OTHER LIABILITIES		
1. Accounts payable-trade	711,063,815	584,054
2. Notes payable	—	10,119
3. Advances received on account of orders	171,007,561	179,355
4. Payables to affiliated companies	1,031,497,100	1,020,952
5. Sundry liabilities	430,722,332	374,519
	2,344,290,808	2,168,999
VIII. PROFIT RETAINED	284,555,792	279,724
	10,888,137,210	10,293,485
1. Contingent liabilities from the issue and endorsement of notes	658,172,800	301,753
2. Contingent liabilities from guarantees	826,206,686	697,793
3. Contingent liabilities from warranties	43,203,880	48,821

**Statement of Income of BASF Aktiengesellschaft
for the Year Ended December 31, 1981**

	1981 DM	1980 DM	1,000 DM	1,000 DM
1. Sales	14,184,016,418		12,490,959	
2. Increase in inventories of finished and semi-finished goods and products on lease	174,792,723	14,358,809,141	67,942	12,558,901
3. Work performed for own purposes and capitalized		167,685,920		154,065
4. Total performance	14,526,495,061		12,712,966	
5. Expenses for raw materials, supplies and purchased merchandise		8,161,189,689		6,724,463
6. Gross profit		6,365,305,372		5,988,503
7. Income from profit transfer agreements	509,084		7,195	
8. Income from participating interests	374,496,613		236,250	
9. Income from other investments	1,210,129		868	
10. Other interest and similar income	83,657,545		90,615	
11. Income from retirements of fixed assets and write-ups to fixed assets	6,420,273		84,668	
12. Income from the decrease of general value adjustments for accounts receivable		—	33	
13. Income from reversal of provisions for liabilities and charges	42,660,380		37,413	
14. Income from reversal of special reserves	29,650,028		97,770	
15. Other income non-recurring: DM 14,388,550	191,834,620		172,556	
		730,438,672	12,508	727,368
		7,095,744,044		6,715,871
16. Wages and salaries	2,582,679,974		2,437,374	
17. Compulsory social security contributions	337,288,178		314,512	
18. Expenses for pensions and assistance	279,801,152		253,917	
19. Depreciation and write-downs of tangible fixed assets	799,640,557		764,382	
20. Write-downs of investments	55,947,815		99,283	
21. Losses from value adjustments or disposal of current assets other than inventories and increase of general value adjustments for accounts receivable	42,549,498		14,500	
22. Losses from retirements of fixed assets	11,327,084		24,938	
23. Interest and similar expenses	238,854,802		185,087	
24. Taxes a) on income and property b) others	400,841,197 8,880,956		414,274	
		409,722,153	9,065	
25. Losses from profit transfer agreements	59,849,828		423,339	
26. Increase of special reserves	87,178,340		6,343	
27. Other expenses	1,866,357,155	6,771,196,536	41,841	1,820,672
			41,841	6,386,188
28. Net income for the year	324,547,508		329,683	
29. Profit brought forward	8,284		41	
		324,555,792	329,724	
30. Appropriation to free reserve		40,000,000	50,000	
31. Profit retained	284,555,792		279,724	

Pension paid including payments to legally independent pension funds

a) in 1981 DM 128,055,931

b) anticipated in the next five years: 105 percent, 109 percent, 114 percent, 118 percent, 123 percent of the amount specified under (a)

The accounting records, the financial
statements and the annual report
are in agreement with all legal and statutory
requirements according to our
obligatory examination.

Schitag
Schwäbische Treuhand-Aktiengesellschaft
Wirtschaftsprüfungsgesellschaft
Steuerberatungsgesellschaft
(Certified Public Accountants – Tax Consultants)

Stuttgart, April 6, 1982

<p>Dr. Frey Wirtschaftsprüfer (Certified Public Accountant)</p>	<p>ppa. Schnecke Wirtschaftsprüfer (Certified Public Accountant)</p>
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Notes to the 1981 Financial Statements of BASF Aktiengesellschaft

BALANCE SHEET



BASF SHARES
DM quotation per share, par value
DM 50.

BASF shares are quoted on German stock exchanges in Frankfurt/Main, Berlin, Bremen, Duesseldorf, Hamburg, Hanover, Munich and Stuttgart. Abroad they are listed on stock exchanges in Zurich, Basel, Geneva, Paris, Brussels, Antwerp, Amsterdam, Vienna and London. For 1977–1981 the graph shows the highest, lowest and year-end quotations for BASF shares on the Frankfurt stock exchange.

ASSETS

I. Fixed assets

A. Tangible and intangible fixed assets

1.–7. *Tangible fixed assets* are carried at acquisition or production costs reduced by regular depreciation and special write-offs. The construction costs of plants built by ourselves include raw material costs, manufacturing wages as well as an appropriate portion of production overhead, as applicable for tax purposes, including straight-line depreciation charges. In general, movable property is depreciated under the declining balance method, immovable property under the straight-line method. The declining balance method used for movable property is switched to the straight-line method when appropriate. Fixed asset acquisitions of low value were written off as incurred.

Retirements comprise mainly residual book values of fixed assets scrapped or sold. Depreciation of property, plant and equipment as

permitted for tax purposes, is taken to the fullest extent. Depreciation charges consist of the following:

	million DM	1981	1980
<i>Regular depreciation:</i>			
Declining balance method and straight-line method	710.5	680.3	
Write-offs of low-value assets	22.7	23.2	
	733.2	703.5	
<i>Special write-offs:</i>			
Protection of water and air environment, noise reduction and waste disposal	58.9	55.9	
Transfer of gains on sales in accordance with § 6b EStG (income tax law)	0.9	1.3	
Others	6.6	3.7	
	66.4	60.9	
Total	799.6	764.4	

Additions to fixed assets, including transfers from tangible assets in course of construction, have been depreciated as follows:	Additions and Transfers million DM	Depreciation million DM
1. Real estate and equivalent rights with commercial or industrial buildings	92.7	6.1
2. Real estate and equivalent rights with residential buildings	0.5	-
3. Real estate and equivalent rights without buildings	7.2	0.9
4. Buildings on land owned by others, not included in 1. or 2. above	0.1	-
5. Machinery, plant and equipment	584.0	128.8
6. Fixtures and fittings	132.7	46.8
7. Payments on account, and tangible assets in course of construction	41.6	2.0
Total	858.8	184.6

Of the approximately 1,751 hectare real estate, about 15 hectare are subject to hereditary leasing rights.

8. The *intangible fixed assets* are stated, as heretofore, at the reminder value of DM 1.

B. Investments

1. *Participating interests* are stated at cost of acquisition. In case of permanent impairment of value, special write-downs were made.

Additions relate primarily to the acquisition of additional shares of Knoll AG whose common shares are now wholly owned by BASF Aktiengesellschaft, and to capital increases, which primarily concern BASF Brasileira S.A., Indústrias Químicas, São Paulo; BASF de México, S.A. de C.V., Mexico, D.F.; and BASF Argentina S.A., Buenos Aires. The shares of BASF Canada Inc., Montreal, were transferred to BASF Aktiengesellschaft at the merger of Canapol Chemie-Beteiligungsgesellschaft mbH, Ludwigshafen, into BASF Aktiengesellschaft.

Retirements relate to smaller domestic and foreign subsidiaries and affiliates.

Write-downs due to permanent impairments relate to the carrying values of BASF Argentina S.A., Buenos Aires, Compagnie Chimique de la Méditerranée S.A., Berre l'Etang, and three smaller companies.

2. Loans with a term of at least four years are predominantly loans for housing granted to employees. Non-interest bearing loans are written down to the present value; the increase of the present value is reflected as write-up. Individual risks are charged as write-offs.

II. Current assets

A. Products on lease

Includes computer peripheral equipment and media on lease. Such goods are carried at acquisition or production costs, less value adjustments as allowable for tax purposes.

B. Inventories

Compared to the preceding year, inventories increased by DM 215.8 million, mainly due to higher raw material prices and increased production costs of finished products.

1. *Raw materials and supplies* are individually valued at the lower of cost or market taking into account any value adjustments as allowable for tax purposes. Adequate provision has been made for risks due to technical obsolescence and diminution of quality.

2. *Finished products, merchandise* have been valued individually at production or acquisition cost, however, not in excess of the expected sales proceeds, less costs to be incurred prior to sale and less an average profit margin. Production costs are based on the normal capacity utilisation of the production plants and include direct costs and an appropriate portion of the production overhead, as applicable for tax purposes, including straight-line depreciation charges based on the acquisition cost of property, plant and equipment employed in production. Provisions for sales risks and obsolescence have been adequately taken into account.

C. Uncompleted contracts

Uncompleted contracts comprise mainly expenditures incurred for plants constructed for third parties at home and abroad. They are valued at acquisition or production cost or the lower realizable value.

D. Other current assets

1. *Payments on account* are stated at acquisition cost, excluding turnover tax.

2. *Accounts receivable-trade* have increased by DM 179 million.

The average collection period increased slightly compared to the previous year.

3. *Notes receivable* consist almost exclusively of foreign drafts partly with terms of more than 90 days. They are carried at the discounted value. Provision has been made for risks related to the notes.

5. *Cash in banks* comprises principally demand deposits.

6. *Securities* consist exclusively of interest bearing papers. They are carried at cost or market, whichever is lower.

7. *Accounts receivable* from affiliated companies include accounts receivable-trade, interest and non-interest bearing loans and notes receivable.

9. *Other current assets* include principally refunds, registered bonds and promissory notes, deferred interest receivable, short-term loans granted to employees and advances.

Other current asset items are carried at cost or lower realizable value.

III. Prepaid expenses

This item relates primarily to prepaid rent, insurance and other expenses relating to subsequent years.

CAPITAL AND LIABILITIES

I. Capital stock

On December 11, 1981 the capital stock was increased by DM 34,500,000 from authorized capital by the issue of 690,000 bearer shares at a nominal value of DM 50 each, entitled to dividend as of January 1, 1981 at an issue price of DM 141.-, the legal subscription privilege being overruled. These shares were subscribed by Deutsche Bank AG to be issued to employees of the BASF Group.

From the conditional capital, shares in the nominal value of DM 6,900 were issued to settle the compensation claims of former Wintershall shareholders in connection with the integration of Wintershall AG.

Hereafter, the capital stock totaled DM 2,032,477,750, the authorized capital DM 156,500,000 and the conditional capital DM 340,031,200.

The Board of Executive Directors is authorized to increase the capital stock by the issue of new shares in the amount of up to DM 156,500,000 against contributions in money or kind (authorized capital) until June 1, 1982 with approval of the Supervisory Board. The Board of Executive Directors is entitled to overrule the legal subscription privilege of shareholders.

Of the conditional capital, DM 33,450 are reserved to settle the compensation claims of former Wintershall shareholders.

DM 139,997,750 are reserved to settle the subscription rights of warrants from bond issue 1974/86.

Additional DM 200,000,000 are exclusively reserved to settle the subscription rights for BASF shares in case of the issue of bonds with warrants, according to the authorization given to the Board of Executive Directors by resolution of the Annual Meeting of Stockholders on June 26, 1980. According to this authorization, the company guaranteed the US \$ 165 million bonds with warrants 1982/1988, floated in February 1982 by BASF Overzee N.V., granting the right to subscribe for up to DM 165 million.

II. Reserves

1. The change in the *legal reserve* represents the appropriation of the share premium from the capital stock increase from the authorized capital.

2. The *free reserve* was increased by a DM 40,000,000 appropriation from net income for the year.

III. Special reserves

The special reserves consist of the following amounts:

	million	DM
Value adjustments on non-interest bearing loans granted prior to January 1, 1955, according to § 7c EStG (income tax law)	2.0	2.0
Reserves for price increases as permitted under § 74 EStDV (income tax directive)	183.3	183.3
Reserves for replacements according to Section 35 EStR (income tax regulations)	0.1	0.1
Reserves according to § 3 AuslInvG (foreign investment law)	13.3	13.3
Reserves for capital investments in developing countries, as permitted under § 1 Entwicklungshilfe- (development aid tax law) and Entwicklungsländer-Steuergesetz (developing countries tax law)	77.9	77.9
		276.6

VI. Liabilities with a term of at least four years

1.-3. The decrease results from regular and premature redemptions.

1.-5. From the amounts due within less than four years, approximately DM 7 million are due within one year.

VII. Other liabilities

1. *Accounts payable-trade* increased by approximately DM 127 million.

3. *Advances received on account of orders* consist primarily of partial payments, exclusive of turnover tax, on uncompleted facilities (uncompleted contracts) being built for third parties at home and abroad.

4. *Payables to affiliated companies* comprise accounts payable-trade, advances received and other liabilities. The insignificant increase resulted from accounts payable-trade.

5. *Sundry liabilities* comprise accounts payable for wages and salaries, social service institutions, deferred interest, amounts to be settled from sales on behalf and on account of third parties, compensated absences, as well as miscellaneous short-term liabilities.

Liabilities are carried at the amounts expected to become repayable.

V. Provisions for liabilities and charges

1. *Pension provisions* have been computed on an actuarial basis according to the entry age normal method (§ 6a EStG).

3. *Other provisions* are adequately provided for risks in sales and purchases, for lawsuits, other pending obligations and taxes.

Contingent liabilities and commitments

Contingent liabilities from the issue and endorsement of notes increased by about DM 356 million.

Contingent liabilities from guarantees were higher by DM 128 million compared to the previous year. Guarantees granted have been entered into mainly on behalf of affiliated companies.

Contingent liabilities from warranties relate almost exclusively to guarantees for indebtedness of BASF Group companies.

Commitments not shown in the balance sheet, including collateral given for own liabilities, consist of

	1981 million DM	1980 million DM
Securities pledged to BASF Employees' Health Insurance, nominal value	15,000,000	12.0
Collateral of notes payable through the assignment of claims from the construction of plants for third parties	—	10.1
Unpaid stock subscriptions not yet called	3,934,997	3.9

In addition, at the date of the balance sheet, contingent liabilities and commitments existed resulting from the provisions of Regulation No. 8 (pensions) of the Allied High Commission Law No. 35, as well as from legal liabilities according to § 322, section 1, AktG (corporation law) due to the integration of Wintershall AG. In connection with the indebtedness and the obligations from a lease contract of subsidiary companies in the U.S., we have guaranteed to maintain sufficient capital or to secure the fulfillment of the contractual obligations of these companies.

Total remuneration of the members of the Board of Executive Directors according to § 160 (3) No. 8 AktG (corporation law) amounted to DM 7,390,994 for the fiscal year 1981; payments to the members of the Board of Executive Directors for their activities as the legal representatives of affiliated companies totalled DM 156,032.

Total remuneration of the former members of the Board of Executive Directors and their surviving dependents, including, in accordance with Regulation No. 8 (pensions) of the Allied High Commission Law No. 35, pensions and payments payable to former members and surviving dependents of the Board of Executive Directors of IG Farbenindustrie Aktiengesellschaft, amounted to DM 3,011,159 for 1981.

Total remuneration of the Supervisory Board amounted to DM 860,000, exclusive of turnover tax.

BASF AKTIENGESELLSCHAFT SALES AND PRE-TAX EARNINGS

1972 = 100

260

240

220

200

180

160

140

120

100

80

60

40

20

0

Sales

Pre-Tax Earnings

1972 73 74 75 76 77 78 79 80 81

BASF AKTIENGESELLSCHAFT APPLICATION OF TOTAL REVENUE¹ IN 1981

million DM

8,161 Expense for raw materials and supplies

3,200 Expense for personnel
2,067 Other expense

1,094 Depreciation and interest

410 Taxes

285 Dividend

40 Reserve

15,257 Total

¹ = sales + other revenue

Notes to the 1981 Financial Statements of BASF Aktiengesellschaft

STATEMENT OF INCOME

1.–6. Sales were 13.6 percent higher than last year, the total performance increased by 14.3 percent. Costs of raw materials, supplies and purchased merchandise increased 21.4 percent, the gross profit 6.3 percent.

7. Income from profit transfer agreements results primarily from Chemische Düngerfabrik Rendsburg GmbH, Rendsburg.

8. Income from participating interests relates principally to dividends, each in million DM, of 182.8 paid by Wintershall AG, Celle/Kassel, of 54.7 by BASF Farben + Fasern AG, Hamburg, of 52.1 by BASF Holding-AG, Zurich, of 21.1 by BASF Chemiewerte-AG, Zurich, of 9.4 by Elastogran GmbH, Lemfoerde, of 9.1 by Knoll AG, Ludwigshafen, of 8.0 by BASF Antwerpen N.V., Antwerp, of 6.5 by BASF de México, S. A. de C. V., México, D.F., of 5.2 by BASF Española S.A., Barcelona, of 4.2 by BASF Japan Ltd., Tokyo, of 4.1 by Suma S.A., Gien (Loiret).

The income from domestic participating interests includes the respective corporation tax credits in the amount of DM 94.0 million.

13. Income from reversal of provisions for liabilities and charges mainly resulted from provisions for business, legal and tax risks no longer required.

14. Income from reversal of special reserves primarily relates to the reversal of reserves for price increases due to expiration of time as well as the reversal of reserves according to § 1 Entwicklungshilfe- und Entwicklungsländer-StG (development aid tax law and developing countries tax law) and of reserves according to § 3 AuslInvG (foreign investment law).

15. Other income includes principally proceeds from sales not directly related to operations, allocation of taxes due to tax pooling agreements, gains on currency transactions, government subsidies received for expenditures in research and development in 1980 and for certain energy-saving installations, and the dissolution of value adjustments to accounts receivable no longer required.

16. Wages and salaries increased by DM 145.3 million.

17. Compulsory social security contributions rose by DM 22.8 million.

18. Expenses for pensions and assistance relate principally to current pension payments, contributions to the BASF Employees' Pension Fund, a contribution to BASF-Altershilfe GmbH and additions to pension provisions; they were higher by DM 25.9 million compared to the preceding year.

19.–20. Depreciation and write-downs of tangible fixed assets and investments have been explained in the notes to fixed assets.

21. Losses from value adjustments or disposal of current assets other than inventories and increase of general value adjustments for accounts receivable relate primarily to uncollectable accounts receivable, to value adjustments for doubtful accounts receivable, to allowances for transfer risks and to the increase of general value adjustments for latent credit risks, principally due to the increase of accounts receivable-trade.

22. Losses from retirements of fixed assets are mainly attributable to scrapping of plant and equipment due to technical developments.

24.a) Taxes on income and property comprise DM 44 million expenses due to tax pooling agreements and DM 63 million non income-related taxes.

24.b) The other taxes consist primarily of oil and automobile taxes.

25. Losses from profit transfer agreements relate principally to Rheinische Olefinwerke GmbH, Wesel, as well as to LUWOGE Wohnungsunternehmen GmbH, Ludwigshafen, BASF Kraftwerk Marl GmbH, Marl, and BASF Handels- und Export-Gesellschaft mbH, Ludwigshafen.

27. Other expenses include primarily costs of services and repairs performed by outside contractors, shipping costs, rents and leases, license fees, commissions, advertising expenses, bank charges, insurance premiums, fees, contributions, etc., cost of sales not directly related to operations, contributions and charges to provide for risks at affiliated companies primarily active in plastics as well as the formation of provisions for risks in so far as they have to be carried under this item.

28.–31. From the net income for the year DM 40,000,000 were appropriated to the free reserve, leaving a profit retained of DM 284,555,792.

We propose to distribute from the profit retained a dividend of DM 7.00 per share with the nominal value of DM 50. Domestic shareholders receive in addition a tax credit of DM 3.94, provided they are entitled to apply such credits. If the proposal is accepted, the dividend payable in the year under review on stock fully entitled to dividend of DM 2,032,477,750 will be DM 284,546,885 leaving an undistributed profit of DM 8,907.

We propose that the undistributed amount be carried forward.

Ludwigshafen, April 6, 1982

**The Board of
Executive Directors**

Report of the Supervisory Board

During the period under review we met five times with the Board of Executive Directors in order to maintain surveillance over the management of the company's affairs and, in addition, kept current and fully informed about questions facing the management by reviewing their written and verbal reports. We have examined the Financial Statements, the Annual Report of BASF Aktiengesellschaft and the proposal for the appropriation of net income. The Financial Statements, including the books and the Annual Report of BASF Aktiengesellschaft, have been examined by Schitag Schwäbische Treuhand-Aktiengesellschaft, the auditors appointed by the Annual Meeting, and have been given an unqualified opinion. Having concluded our own examination we concur with the auditors and see no grounds for objections. The Financial Statements and the Annual Report of BASF Aktiengesellschaft and Consolidated German Subsidiaries as well as the report of the auditors who expressed an unqualified opinion have been brought to our attention.

We have approved the Financial Statements of the company drawn up by the Board of Executive Directors, which are thus final, and concur with the proposal of the Board of Executive Directors regarding the appropriation of net income.

Ludwigshafen, April 21, 1982

The Supervisory Board

Supervisory Board

Prof. Dr. phil. nat. Bernhard Timm,
Heidelberg
Chairman

Werner Vitt, Isernhagen
Deputy Chairman
Deputy Chairman of the Central Board of
Executive Directors of Industriegewerkschaft
Chemie-Papier-Keramik (Chemical, Paper and
Ceramics Industries Union)

Dr. rer. nat. Wolfgang Arend,
Ludwigshafen
Chairman of the Board of Spokesmen
of the Management Employees
of BASF Aktiengesellschaft

Dr. jur. Robert Ehret,
Frankfurt/Main
Member of the Board of Executive
Directors of Deutsche Bank AG

Prof. Dr. rer. nat. Manfred Eigen,
Goettingen
Director, Max Planck Institute
for Biophysical Chemistry in Goettingen

Prof. Dr.-Ing. Berthold Frank,
Heidelberg

Dr. rer. pol. Johan M. Goudswaard,
Wassenaar, Netherlands
Deputy Chairman of the
Executive Council of Unilever N. V.

Dr. jur. Wolfgang Heintzeler, Heidelberg

Kurt Herrmann, Ludwigshafen

Dr. rer. pol. Kurt Hohenemser,
Dreieich-Dreieichenhain
Member of the Board of Executive Directors of
Deutsche Schutzvereinigung für Wertpapier-
besitz e.V. (Registered German Association for
the Protection of Owners of Securities)

Dr. jur. Robert Holzach,
Zumikon, Switzerland
Chairman of the Board of Schweizerische
Bankgesellschaft (Union Bank of Switzerland)

Christoph von Knorre, Ludwigshafen
Member of the Works Council
of the Ludwigshafen Works
of BASF Aktiengesellschaft

Roland Koch, Ludwigshafen
Member of the Works Council
of the Ludwigshafen Works
of BASF Aktiengesellschaft

Board of Executive Directors

Prof. Dr. rer. nat. Matthias Seefelder
Chairman

Dr. rer. nat. Hans Moell
Deputy Chairman
until March 31, 1982

Dr. rer. nat. Hans Albers
Deputy Chairman
as of April 1, 1982

Dr. rer. pol. Ernst Denzel

Dr. rer. nat. Hans Detzer
as of January 1, 1982

Dr.-Ing. Detlef Dibbern

Prof. Dr. rer. nat. Helmut Dörfel

Dr.-Ing. Erich Henkel

Dr. rer. nat. Wolfgang Jentzsch

Prof. Dr.-Ing. Horst Pommer
until December 31, 1981

Dr. rer. pol. Ronaldo Schmitz

Prof. Dr.-Ing. Karl-August Wetjen

Dr. rer. nat. Herbert Willersinn

Hans Joachim Witt

BASF Group Managing Directors

Dr. rer. nat. Hans Albers North America	Dr. rer. nat. Wolfgang Jentzsch BASF Ludwigshafen	Dr. rer. nat. Heinz Pohlemann Engineering Plastics
Prof. Dr. rer. nat. Ernst Biekert Pharmaceuticals	Dr. rer. pol. Heinrich Jonas Accounting	Prof. Dr. rer. nat. Werner Reif Main Laboratory
Dr.-Ing. Günter Bogenstätter Technical Development	Dr. jur. Jürgen-Friedrich Kammer Finance	Dipl.-Ing. Gottfried Richter Project Engineering and Construction
Gaston Borgoltz France	Dr. rer. nat. Horst Kerber Basic Chemicals	Wolfgang Ritter Legal, Taxes and Insurance
Hans Brühwiler Europe 3	Dr. rer. nat. Hans-Harald Kopper Fibers	Dr. rer. nat. Norbert Rudolphi Industrial Chemicals
Dr. jur. Klaus Cantzler Europe 2	Dr.-Ing. Wolfgang Kost Controlling	Frohdhin Schuster Latin America
Dr. rer. nat. Otto Christmann Textile Dyes and Chemicals	Dr. rer. nat. Heinrich Laib Dispersions	Wolfgang Schwer Raw Material Purchasing
Dr. rer. nat. Hans Detzer Central Planning	Dipl.-Ing. Otto Landhäußer Energy and Coal	Dr. rer. nat. Dieter Stein Personnel
Rudolf Dütemeyer Spain	Dr. rer. nat. Hans Lautenschlager Brazil	Dr. rer. nat. Walter Stilz New Areas
Dr. rer. nat. Albrecht Eckell Plastics Research Laboratory	Dipl.-Ing. Theo Marré Works Engineering Services	Dr. rer. nat. Hans-Jürgen Sturm Nutrition
Peter Eisenlohr Personnel	Dr. jur. Norbert Martin Europe 1	Dr. rer. nat. Helmut Thurn Information Systems
Dr. rer. nat. Horst Endres BASF Antwerp	Dr. rer. nat. Horst Metzger Crop Protection	Dr. rer. pol. Karl-Heinz Tillmann Fertilizers
Christian Erasmi Africa/West Asia	Dr. rer. nat. Manfred Minsinger Reaction Plastics	Dr. agr. Otto Walterspiel Potash and Salt
Dr. rer. nat. Hans Friz Ammonia Laboratory	Dr. oec. publ. Ernst Mühlung Logistics and Sales Branches	Dipl.-Kfm. Robert H. Weber Accounting and Information Services
Günter J. Gochla Japan	Karl Münch Pigments and Auxiliaries	Dr. rer. nat. Gernot Winter Polyolefins and Polyvinyl Chloride
Dr. rer. nat. Johannes Grohmann Fiber Intermediates	Prof. Dr.-Ing. Otto Nagel Engineering, Technology and Technical Services	Heinz Wüstefeld Oil and Gas
Dr. rer. nat. Erwin Hahn Color Research Laboratory	Dr. rer. nat. Ingo Paetzke Coatings	Dr. rer. pol. Robert Zinser South and East Asia/Australia
Dipl.-Ing. Friedrich Hofherr Semi-finished and Finished Products	Dr. rer. nat. Hans Georg Peine Environmental Protection and Safety	
Dr. rer. nat. Heinz Hohenschutz Intermediates		

As of December 31, 1981

BASF Aktiengesellschaft

Directors of Departments and Sales Offices

Dipl.-Kfm. Werner Abel
Dr. phil. nat. Theo Ankel
Dr. rer. nat. Max Appl
Dipl.-Kfm. Claus Baumann
Edgar Beck
Günter Becker
Dipl.-Ing. Klaus Becker
Lutz Beckers
Heinz Günter Beermann
Bernt Berghäuser
Eberhard Bergmann
Dr. rer. nat. Knut Bittler
Dr. rer. pol. Günter Bock
Dr. rer. nat. Erhard Borchers
Dr. rer. nat. Wilhelm Brunkhorst
Dr. rer. nat. Fritz Brunnmüller
Dr. rer. nat. Siegfried Buchholz
Dr. rer. nat. Oskar Büchner
Dr. rer. nat. Karl Burger
Dr.-Ing. Jürgen Busch
Werner Chormann
Dipl.-Ing. Roland Dahlinger
Dr. jur. Hans-Hermann Dehmel
Dipl.-Kfm. Klaus Deichner
Dr. rer. nat. Peter Dimroth
Dr. rer. nat. Hans Dörries
Dr. rer. nat. Hans-Dieter Dorrer
Dr. rer. nat. Dieter Dorsch
Franz Düberg
Dipl.-Kfm. Friedrich Edel
Edwin Ehmann
Dr. rer. nat. Heinz Eilingsfeld
Dr. rer. nat. Georg Falkenstein
Dr.-Ing. Klaus Feind
Dr. rer. nat. Roman Fischer
Dr.-Ing. Franz Josef Frank
Dr. rer. nat. Klaus Jürgen Fust
Dr. med. Heinz-Peter Gelbke
Prof. Dr. rer. nat. Heinz Gerrens
R. A. Helmut Glassen
Dr. rer. nat. Norbert Götz
Dr. rer. nat. Hans Grassner
Dr. rer. nat. Hans Gropper
Dr. rer. nat. Otto-A. Grosskinsky
Dr. rer. nat. Josef Gruber
Dipl.-Ing. Hans Günther
Dr. rer. nat. Helmut Günzler
Dr. rer. nat. Franz Haaf
Dr. rer. nat. Manfred Häberle
Dipl.-Kfm. Dietrich von Hanstein
Bernhard Hardekopf
Dr. rer. nat. Peter Haug
Dr.-Ing. Heinz Hauser
Prof. Dr.-Ing. Manfred Heckle
Dr. rer. nat. Dieter Heinze
Dr. rer. nat. Konrad Hengst
Dr. rer. nat. Otto Hertel

Dr. phil. nat. Herwig Hoffmann
Prof. Dr. rer. pol. Rolf Hofmann
Joachim Holstein
Dr. rer. nat. Paul Hornberger
Dipl.-Kfm. Karl-Heinz Jäger
Hans-Gerd Jansen
Dipl.-Ing. Karl Kehler
Dr. rer. pol. Klaus Kiepe
Dr. oec. publ. Heinz Kinader
Dr. rer. nat. Klaus Kinkel
Helmut Klamm
R. A. Max Dietrich Kley
Dr.-Ing. Horst Kries
Dr. agr. Edmund Köhler
Prof. Dr. rer. nat. Horst König
Dr. rer. nat. Karl-Heinz König
Hans-Jakob Krämer
Dipl.-Kfm. Paul Krautheimer
Prof. Dr. med. Rolf Kretzschmar
Dr. jur. Gerd Krohn
Dr.-Ing. Hanns-Günter Krüger
Dipl.-Ing. Dieter Kuczaty
Dr. rer. nat. Joachim Kunde
Dr. rer. nat. Dietrich Lausberg
Dr. oec. Hans-Karl Lobenwein
Friedrich Löffler
Dr. rer. nat. Gero Lüth
Dr. agr. Jakobus Heinrich Lüttmer
Dr.-Ing. Karl Mahler
Dipl.-Volksw. Helmuth Maier
Dr. rer. nat. Herbert Maisack
Dr. rer. nat. Karl Martin
Dr. rer. pol. Peter Metzenthin
Dr. rer. nat. Hermann Meyer
Horst Meyer
Dr. phil. nat. Horst Mögling
Dr. rer. nat. Heinz Müller-Tamm
Hans Mutzenbecher
Dr. phil. Gerald Neubauer
Dr. phil. Axel Nürnbach
Dr. rer. nat. Hans Otterbach
Dr. rer. nat. Martin Pape
Dr. rer. pol. Walter Paul
Dr. rer. nat. Ernst Penning
Dr. rer. nat. Wolfgang Pfab
Dr. rer. nat. Hans Joachim Raabe
Dr. rer. nat. Ernst Raber
Dr. rer. nat. Paul Raff
Dr. rer. pol. Hans Willi Rapp
Dipl.-Ing. Herbert Reblitz
Dipl.-Kfm. Dietrich Reger
Dr. rer. nat. Martin Reichert
Dr. rer. pol. Anny Reichl
Hans Reinack
Dr. rer. nat. Hans Reinhard
Dr. rer. nat. Manfred Reinmöller
Dr. agr. Günter Riehle

Dr. rer. nat. Wilhelm Rittinger
Dr. rer. nat. Peter Roder
Dr. rer. nat. Robert Rothe
Dr.-Ing. Wilhelm Röhle
Dr. rer. nat. Walter Sanne
Dipl.-Kfm. Wolfram Scheerbaum
Dr. rer. pol. Norman van Scherpenberg
Rudolf Schlümme
Heinz Schlüter
Dr. phil. nat. Hans Wilhelm Schmidt
Dipl.-Kfm. Karlheinz Schöler
Günter Schönrock
Dr. rer. nat. Helmut Schuller
Dr. rer. nat. Matthias Schwarzmann
Wolf-Asmus von Selchow
Dr. phil. Peter Siebel
Dr. rer. nat. Jens-Peter Siegfriedt
Prof. Dr. rer. nat. Heinz Spähn
Dipl.-Kfm. Klaus Sperling
Dr. rer. nat. Herbert Spoor
Dr.-Ing. Harald Stahl
Dr. rer. nat. Erhard Stahnecker
Dr. rer. nat. Hanns-Helge Stechl
Dipl.-Landw. Klaus von Stetten
Dr.-Ing. Dieter Stockburger
Dr. rer. nat. Erich Stöckl
Dr. rer. nat. Hubert Suter
Dr. phil. Johann Swoboda
Günter Taege
Prof. Dr. med. Alfred Thiess
Hubertus von Tobien
Dr.-Ing. Karl Uhl
Hans-Jochen Versemann
Ludwig Vogel
Dr. rer. nat. Heinz Völker
Dr. rer. nat. Ulrich Wagner
Dr. rer. nat. Dietmar Werner
Dr. rer. nat. Hermann Weißlau
Dr. rer. nat. Kurt Wick
Dipl.-Ing. Markus Willinger
Dipl.-Kfm. Gerhard Wolf
Dr. rer. nat. Albrecht Würz
Dr. rer. nat. Rolf Wurmbr
Hubert Wydra
Erich Zepp
Paul Werner Zumbruch

As of December 31, 1981

BASF Group
Ten-Year Summary

MILLION DM	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
SALES AND EARNINGS										
Net sales	11,861	14,258	19,736	18,081	20,983	21,150	21,513	25,896	27,731	31,766
Income before income taxes and minority interests	724	1,053	1,338	849	1,406	1,109	1,149	1,703	1,271	1,290
Income taxes	312	516	801	489	790	696	718	1,067	891	909
Minority interests in income	4	23	18	(15)	9	25	10	17	21	14
Net income	408	514	519	375	607	388	421	619	359	367
ASSETS										
Property, plant and equipment	6,114	6,191	6,441	6,652	6,923	7,181	7,597	7,679	7,724	7,977
Patents, trademarks, franchises	46	53	23	15	10	29	30	16	102	99
Investments	801	708	695	763	828	848	708	817	683	728
FIXED ASSETS	6,961	6,952	7,159	7,430	7,761	8,058	8,335	8,512	8,509	8,804
Inventories, uncompleted contracts and goods on lease	1,800	1,947	3,206	3,041	3,420	3,453	3,274	3,906	4,603	5,400
Notes and accounts receivable	2,496	2,772	2,910	3,095	3,070	2,996	3,364	3,909	4,234	4,682
Cash and cash items	774	958	967	930	944	624	708	863	670	725
CURRENT ASSETS	5,070	5,677	7,083	7,066	7,434	7,073	7,346	8,678	9,507	10,807
Deferred charges and prepaid expenses	250	233	280	243	289	212	188	203	266	273
Balance arising from consolidation	237	233	116	161	44	19	—	—	—	—
TOTAL	12,518	13,095	14,638	14,900	15,528	15,362	15,869	17,393	18,282	19,884
CAPITAL AND LIABILITIES										
Capital stock of BASF Aktiengesellschaft	1,526	1,541	1,641	1,723	1,768	1,914	1,939	1,971	1,998	2,032
Paid-in surplus	1,360	1,385	1,368	1,368	1,466	1,704	1,747	1,804	1,844	1,907
Earned surplus	983	1,272	1,563	1,657	2,267	2,385	2,578	2,965	3,019	3,106
EQUITY OF BASF GROUP	3,869	4,198	4,572	4,748	5,501	6,003	6,264	6,740	6,861	7,045
Balance arising from consolidation	—	—	—	—	—	—	6	10	45	17
Minority interests	153	156	136	133	131	143	132	131	132	118
Special reserves	62	179	387	414	430	386	422	720	698	736
Unrealized gain on foreign exchange	120	252	288	226	*	*	*	*	*	*
Long-term reserves (due after one year)	939	1,049	1,671	1,946	2,156	2,362	2,454	2,857	3,214	3,577
Long-term liabilities (due after one year)	4,262	3,562	3,201	3,042	2,615	2,401	2,144	1,877	1,928	1,966
Current liabilities, accruals and deferred income	3,113	3,699	4,383	4,391	4,695	4,067	4,447	5,058	5,404	6,425
LIABILITIES	8,314	8,310	9,255	9,379	9,466	8,830	9,045	9,792	10,546	11,968
TOTAL	12,518	13,095	14,638	14,900	15,528	15,362	15,869	17,393	18,282	19,884
CAPITAL EXPENDITURES AND DEPRECIATION										
Expenditure on property, plant and equipment	915	1,170	1,394	1,396	1,541	1,655	1,757	1,811	1,841	2,059
Depreciation of property, plant and equipment	996	1,089	1,218	1,190	1,225	1,336	1,451	1,628	1,592	1,733
NUMBER OF EMPLOYEES	104,054	107,539	110,989	111,445	112,686	113,798	115,408	117,168	116,518	116,646

* The foreign currency translation method was changed in 1976. Since then, gains and losses on foreign currency are directly charged or credited to income of the respective period.

BASF Aktiengesellschaft
Ten-Year Summary

MILLION DM	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
SALES AND EARNINGS										
Sales	5,921	6,905	10,157	8,394	9,798	9,632	9,680	12,134	12,491	14,184
Income before taxes	618	703	896	557	823	677	678	994	744	725
Taxes ³	341	402	537	284	467	396	407	589	414	400
Net income for the year	277	301	359	273	356	281	271	405	330	325
ASSETS										
Tangible and intangible assets	2,270	2,373	2,559	2,608	2,736	2,941	3,143	3,226	3,255	3,299
Investments	2,421	2,524	2,503	2,713	2,733	2,767	2,815	2,826	2,904	3,126
FIXED ASSETS	4,691	4,897	5,062	5,321	5,469	5,708	5,958	6,052	6,159	6,425
Inventories, uncompleted contracts and goods on lease	818	861	1,365	1,212	1,380	1,325	1,272	1,674	1,804	2,019
Receivables and other current assets ¹	1,156	1,528	1,727	1,481	1,398	1,356	1,447	1,846	1,939	1,980
Cash and cash items ²	599	686	678	413	456	368	345	585	340	411
CURRENT ASSETS	2,573	3,075	3,770	3,106	3,234	3,049	3,064	4,105	4,083	4,410
TOTAL	7,264	7,972	8,832	8,427	8,703	8,757	9,022	10,157	10,242	10,835
CAPITAL AND LIABILITIES										
Capital stock	1,526	1,541	1,641	1,723	1,768	1,914	1,939	1,971	1,998	2,032
Reserves and profit retained	1,825	1,901	1,905	1,985	2,123	2,418	2,509	2,607	2,736	2,849
Appropriation to reserves	50	55	80	40	55	50	40	90	50	40
Dividend	229	246	279	233	301	230	233	315	280	285
STOCKHOLDERS' EQUITY	3,630	3,743	3,905	3,981	4,247	4,612	4,721	4,983	5,064	5,206
SPECIAL RESERVES	22	56	172	192	200	204	216	275	219	277
Provisions for liabilities and charges	799	872	1,481	1,554	1,695	1,599	1,686	1,959	2,106	2,306
Liabilities with a term of at least four years	1,952	1,712	1,291	1,238	923	828	735	659	684	701
Other liabilities	861	1,589	1,983	1,462	1,638	1,514	1,664	2,281	2,169	2,345
TOTAL LIABILITIES	3,612	4,173	4,755	4,254	4,256	3,941	4,085	4,899	4,959	5,352
TOTAL	7,264	7,972	8,832	8,427	8,703	8,757	9,022	10,157	10,242	10,835
CAPITAL EXPENDITURES, DEPRECIATION AND RETIREMENTS										
Expenditures on tangible fixed assets	385	620	784	625	691	833	884	887	811	859
Depreciation and retirements of tangible fixed assets	505	517	597	576	563	629	681	804	782	814
NUMBER OF EMPLOYEES	50,464	52,230	54,065	52,707	52,962	52,932	52,318	52,515	52,312	52,690

¹ After value adjustments

² Since 1976 without notes receivable

³ Taxes on income and property, including equalization of burdens property levy until 1979

BASF Aktiengesellschaft
D-6700 Ludwigshafen

BASF